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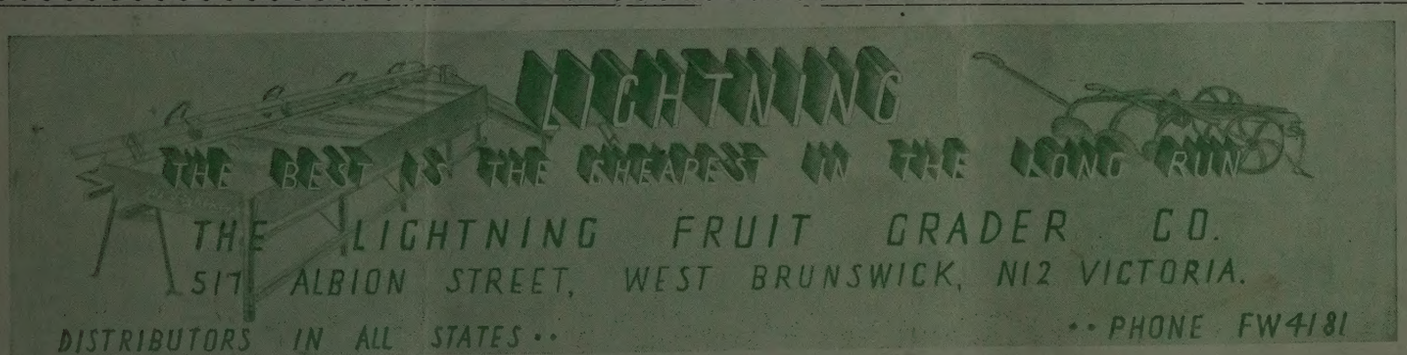
Growers and Visitors at Pakenham, (Vic.) Field Day.

See inside pages for reports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See Also Page 21 MELBOURNE and ADELAIDE SHOWS See Also Page 26

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Aspects of the Coming Season

Correcting the Biennial Bearing Habit :: Pruning :: Manuring :: Ploughing in of Green Crops :: Thinning.

By F. M. Read, M.Ag.Sc.

IN HIS INTERESTING address at the Fruitgrowers' Field Day at the orchard of Mr. J. J. Ahern, Pakenham, on August 11, Mr. F. M. Read, M.Ag.Sc., stated as follows:—

Although the past season has been obviously an extremely difficult one because of adverse climatic conditions, I believe that the coming season is in a sense much more difficult in that, while last year nature made all the important decisions, and growers merely had to do their best to comply with them, the coming year will be one in which the growers will be required to take the initiative and, if possible, prevent our deciduous orchards from following the natural course.

The danger I see in the future is that we may revert to a period of acute alternate or

Biennial Bearing

such as characterised Apple production in this State from 1926 for several years.

During that period, which was precipitated by the serious thrips attack in which the crop was very seriously reduced, the real trouble, to my mind, was that growers did not sufficiently worry about or control the crop in the heavy years, with the result that the trees for the whole period bore a very heavy crop one year and a light crop the next.

In my opinion, the main attack should be made in the heavy year.

This can be done to a limited extent by pruning, and I presume that, for instance, in the coming year, growers will prevent the tree bearing at the terminals of the laterals by shortening back, or, at all events, tipping them, and generally because of the very good showing of blossom buds, thin out rather more heavily than usual.

While this well help, it is by no means enough, for despite it the majority of the buds in the tree may blossom in the coming season, and since the spurs of a tree tend to function as individuals, no degree of pruning can give an adequate assurance of blossom formation for the following year.

I mean by this that in each spur, the likelihood of blossom for the 1940-41 season depends mainly on the leaf area developed on that spur.

You will all have noted that, in a light year, the leaves are very much larger, the tree is much better leafed than in a heavy year, or that in any orchard it is quite easy, from the better appearance of the leaves, to pick out the tree which is light in yield. In the coming year, anything which promotes vigorous growth and large leaf size will promote blossom bud formation for the ensuing year.

The conditions obtaining in the past season, where they did not actually affect the health of the tree, were very favorable for fruit bud formation. It was a good growing season in the early part, and the hot weather caused growth to cease rather abruptly in mid-season, a very favorable combination for fruit bud initiation which occurs, as you are probably aware, about the end of December.

It should be our aim, as far as possible, to produce this effect again, despite the probable heavy blossoming, by making everything favorable for early and quick growth of the trees.

I would say that one of the main features of this **would be to perform the ploughing and general cultivation as early as possible from now on to see that competition for moisture between trees and surface plants does not occur in the Spring.**

Then I would be particularly careful this year to give a good dressing of **balanced fertiliser**, say, four to five pounds to the average tree of the 2:2:1 mixture for Apples and Pears.

If these two things are done, and if, as we may quite reasonably expect, the Spring is not too dry, I think the trees will grow into good leaf, despite the heavy blossoming, and set well for the following year. Unless the trees spring into vigorous growth from the commencement it will probably be difficult to invigorate them by any means later in the season when they are carrying the rapidly maturing crop.

It is of importance to remember too that, when the greenstuff is turned under, a period of nitrogen starvation in the soil occurs for a period from three to six weeks, and that a heavy blossom greatly depletes the tree's nitrogen supply. It has been argued by some people that ploughing the greenstuff under a week or so before blossoming would reduce the percentage of blossom set, and so help the growth of the tree, but I hold a rather different view that the effect of such low nitrogen on the growth of the tree would be more important than its effect on fruit setting under our conditions, and I feel, therefore, that if for any unavoidable reason late ploughing near blossom time is practised, extra nitrogen could well be given to the trees. **In fact, in such a case I would suggest three to four pounds of nitrogenous fertiliser and an application of a pound or so of potash at the same time, leaving the superphosphate in such a case for application in the Autumn.**

Thinning Out

of fruit, like pruning, may help to improve the leaf growth of the tree and, perhaps, to generally improve the position, but it cannot be looked to for complete control, as many growers think, and, therefore, rigorous thinning of a heavy set, though desirable from the point of view of fruit quality and size, will not obviate the necessity for taking the sort of action I have suggested to you, and any other action which you consider will make for good early vigorous growth.

MANURIAL EXPERIMENTS WITH APPLES AND PEARS.

(By W. A. Bane in Sci. Hort., 1939).

EXPERIMENTS WITH MANURES have been conducted at East Malling.

Experiments with Apples.

Unmanured trees on land in good heart grew quite as strongly as manured trees (dung, shoddy, meat and bone meal) for the first 6 years but subsequently fell behind. **The manured trees showed that response varied with variety and rootstock.**

Subsequently heavy dressings of Potassium and Nitrogen rapidly restored the starved trees to vigor and cropping.

Large Scale Experiments.

These consisted of 3 acres of 2 year old Cox's Orange Pippin and Beauty of Bath on the main groups of rootstocks planted on land sown to unmanured cereal crops for 4 years previously.

Nitrogen, potassium and phosphorus were applied singly, and in all possible combinations.

Potassium during the first seven years has been the limiting factor of growth.

Leaf scorch was severe on all no-potash plots. There were stock and varietal differences in response to potash which are described.

The last two years there has been severe die-back, especially on the potash-starved trees, which now receive an annual potash dressing.

Lack of humus was also thought to be involved and half the plot has therefore been dressed with humus, made by the Indore process.

Nitrogen and phosphorus seem to have played a small part compared with potassium, but there are indications that response of the tree varies according to variety and rootstock. Effect of nitro-chalk on trees in grass.

A 3-year experiment to discover whether nitrogen deficiency could be made good by the application of **nitro-chalk** through grass on 20-year-old trees showed that very heavy dressings of nitrogen are unsuitable for Worcester Pearmain, and that the normal dressing of 5 cwt. nitro-chalk gave good quality fruit with heavy foliage and shoot growth with trees on most rootstocks. The quantity now given in any one year is based on the appearance of the trees. Preliminary experiments on Pears. Some notes are given of the conditions of a preliminary manurial experiment on Pears started in 1934-5.

BONES AS FERTILISER.

Method of Utilisation.

THE UTILISATION of "raw" bones for fertilising purposes on the farm, orchard or garden, is a subject of common inquiry, states the "N.S.W. Department of Agriculture. Raw bones or green bones, states a Departmental leaflet, have the following approximate composition:—

Water	6.7%
Organic matter	40.0%
Mineral matter (ash)	53.3%
	100.0%

The organic matter contains about 4 per cent. of nitrogen and a considerable amount of fat. The mineral matter consists chiefly of phosphate of lime.

Unless the bones are partly freed from fat and disintegrated, the phosphates and nitrogen present in the material are not readily available in the soil as plant nutrients. A convenient method of treatment is to break up the bones, place them in a trench with alternate layers of wood ashes and keep the whole moist so that fermentation may take place. After a couple of months, the bones should be completely decomposed and the material can be dug out and incorporated in the soil, supplying it with phosphate, potash (from the wood ash) and a certain amount of nitrogen, in forms readily available to plants.

Bones may be similarly fermented and utilised by breaking them up and adding to an ordinary compost heap.

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NEWS OF THE MONTH.

War.

AS we go to press the abominable scourge—to use Mr. Chamberlain's words—of war has broken out.

It seems a thousand pities that differences cannot be settled by peaceful methods — nevertheless we are up against stark realities, and once again the Empire and its allies face up to the horrors and devastation of war—and on such a scale that as yet it is difficult to contemplate. Our attitude will be that of firm resolve and calm confidence.

To quote Mr. Chamberlain again, we have no quarrel with the German people. They, however, are led by a group whose lust for power has brought on the present calamity. They are in control, and so the machine moves.

In this time of trial we shall need all our courage; let us try to probe deeply into the underlying causes, and co-operate with others of goodwill to remove sources of trouble, and thus remake a world of brotherhood and real democracy.

The fruit industry of Australia will accept its due share of sacrifice. Many intricate problems have to be considered, however, and none more great than those which confront the export section. Local marketing difficulties may be accentuated. However, we shall know more as the days and months go by; the industry is fortunate in having men with the capacity for leadership in the difficult times ahead.

Horticultural Research.

IT HAS BEEN a pleasure to publish from time to time, details of the exceedingly valuable horticultural research work which is being done at the E. Malling Research Station, Kent, England.

In this issue particulars are given of the researches into rootstocks at E. Malling.

Surprising results were revealed when the first rootstock tests were published, leading to revolutionary practices among English nurserymen and fruitgrowers. Other parts of the world, including Australia and N. Zealand, have also benefited. The work was fundamental in character.

Now at the various experimental orchards in these Southern lands can be seen trees worked on these E. Malling stocks, and the characteristics arising therefrom.

Readers are invited to study the details set forth in this issue. The published report is brief, but full particulars are available for those interested.

The work done at E. Malling is an encouragement to research efforts generally, and points the way for definite and detailed work of a similar character here. It does seem a pity we should continually hear the expression "no money available" for fundamental research into this matter and many others which are awaiting attention.

Horticultural research is of first importance, affecting not only the fruit and allied industries, but the national economy generally.

While grateful indeed for the good work which is being accomplished here, the fruit industry is correct in laying stress on this matter, and in urging upon Governmental authorities far larger grants for research into horticultural problems.

We are indebted to E. Malling, too, in regard to another matter. The Imperial Bureau of Horticulture and Plantation Crops, with headquarters at this Research Station, issues quarterly their "Horticultural Abstracts." These abstracts are summaries of research reports from all over the world. They are exceedingly valuable. We have endeavoured to publish as many of these as possible. Again in this issue will be found a continuation of the series. They must have a staff of trained linguists at E. Malling for the abstracts are from many countries on this globe. Judging by the large number of extracts from Soviet Russia it would appear that some particularly valuable horticultural research work is being carried out in that country.

PERSONAL.

Mr. Alfred Neugarten, who is the author of our article in this issue on the Spanish Orange industry, is now in Australia. He has had wide experience in managing a large Spanish fruit exporting business, being instrumental in organising Banana export from the French West Indies, and also organising the trade in Oranges and fresh Grapes from Spain to central Europe. He was subsequently a fruit inspector in the Palestine Department of Agriculture. His speciality is the running of packing houses and organising fresh fruit transport.

:: :: ::

Mr. J. M. Ward, Superintendent of Horticulture, is on his way home from England via Canada and U.S.A. Mr. Ward is expected back at the end of this month. Growers and all interested in the fruit industry will be interested to hear Mr. Ward's report on his experiences abroad.

:: :: ::

At the last meeting of the Banana Sectional Group Committee, **Mr. Buchanan**, who has featured prominently in all Banana industry matters over a number of years, announced that he would not again seek re-election to the Group.

:: :: ::

Mr. Buchanan was first elected to the Banana Sectional Group Committee in August, 1930, and has continually

held office since that date, acting as Representative for the Banana Group on the C.O.D. for eight years. He has also been a member of the Banana Industry Protection Board since August, 1935.

Mr. Buchanan has taken the leading part in the organisation of Bean growers, the body which initiated the idea of canvassing agreements with the trade. He personally represented the C.O.D. in negotiations in Sydney between the Trade, Banana Growers' Federation of New South Wales, and the Committee of Direction, resulting in agreements which have worked satisfactorily from both the trade and grower viewpoints.

:: :: ::

Mr. L. J. Jenkins, who has been President of the N.S.W. Chamber of Fruit and Vegetable Industries since its inception four years ago, did not stand for the position of President in the ensuing year. Many tributes of appreciation were expressed for his untiring and successful services. Mr. Jenkins has been presented with an enlarged photograph to be hung in the Council room of the Chamber.

OBITUARY.

It is with great regret that we learn of the death of Mr. W. P. Scott, Bridgetown (W.A.), in the Harvey Hospital, as a result of a motor accident. While returning from Perth, Mr. Scott swerved his car to avoid a utility truck, skidded and struck a culvert; he was pinned underneath the car. The industry has lost the services of a very able man, as Mr. Scott was a Western Australian grower member of the newly-formed Australian Apple and Pear Board. Mr. R. M. Carter represented the Board at the funeral. The sympathy of the industry is extended to Mr. Scott's family and relations.

NEWS IN BRIEF.

Growers are reminded that close work to their vines must be done before bud burst.

The method for finding the unit value of a fertiliser is explained in the Murray Valley Notes in this issue.

Wine makers had a chance to compare Australian wines with South African, British and Cyprus products, recently, when the testing of 57 samples was carried out in Renmark.

Although seemingly having a synthetic flavor, British wines are a source of serious competition with Australian wines on the British market. Over seven million gallons of these British wines were sold in Great Britain last year.

Two successful methods of zinc application to vines are given in this month's Murray Valley Notes.

Results of the Red Cliffs Vine Pruning Competitions are reported in this issue.

Since the completion of the cold store which has been erected by Messrs. H. Jones & Co. Pty. Ltd., to hold 115,000 cases, the total Apple storage available in Tasmania now totals approximately 600,000 cases.

A large amount of reworking is being done in Tasmania, and growers are advised to make applications immediately for scions, particularly for Red Jonathan.

Investigations regarding the possibility of breeding a commercial variety of Tomato, resistant to the spotted wilt, are being conducted at the Hawkesbury Agricultural College by the Plant Breeding Section of the N.S.W. Dept. of Agriculture.

The matter of claims against the "Viking Star," "Jervis Bay," and "Tacoma Star" for alleged faulty carriage was dealt with at the last meeting of the Tasmanian State Fruit Board.

Green manure cover crops have proved very beneficial in checking soil erosion in many Tasmanian orchards.

Messrs. Abel, Bulman, Smith, R. H. and T. G. Thomson will be the Tasmanian representatives to the joint meeting of the Australian Apple and Pear Council and the Control Board.

It is estimated that S. Australia's preliminary space requirements for the coming season will be 320,000 cases of Apples for the Continent, and 380,000 cases of Apples to U.K. during February, March and April, also 65,000 cases of Pears for the same period, to go to the Continent and U.K. Possibly a chamber would be required for Duchess Pears to the Continent.

A Committee was formulated at a recent meeting of the S. Aust. Fruit Marketing Association to discuss a scheme whereby groups of growers would combine and provide first quality fruit to be sold under a single brand, in co-operation with the cold stores.

The Empire Fruits Conference agreed to the system of educational propaganda to increase the consumption of Apples and Pears in England, this being a feature distinct from orthodox "advertising." The assistance and co-operation of all suppliers of fresh Apples and Pears to the U.K. is being sought—i.e., British growers, the Dominions, and U.S.A.

The annual dinner of the N.S.W. Chamber of Fruit and Vegetable Industries will be held at Sydney on October 14, 1939.

Severe flooding in the Goulburn Valley area is causing heavy losses to growers, and is proving in many parts the inadequacy of the drainage system.

Messrs. S. J. Perry & Co., and the Northern Victoria Fruitgrowers' Association have completed negotiations for the purchase of the whole of the extra fancy and fancy grades of Pears in the Goulburn Valley for the next five years.

The Shepparton Fruit Preserving Co. are building extensions to the value of £25,000.

As Spraying is a Necessity —then use the World's Best—

NEPTUNE SPRAYS...

The better quality of NEPTUNE Sprays is always obvious by comparison with others. NEPTUNE Sprays conform to the highest standards, and they are consistently uniform in strength and quality. Successful orchardists recommend them. Try them yourself and prove that they're better!

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NEPTUNE PREPARED RED SPRAYING OIL ("A," "C," or Heavy Base)
NEPTUNE PALSOL (Prepared Pale Oil)
NEPTUNE CLARIFOL (Winter White Oil)
NEPTUNE LIME SULPHUR SOLUTION (Clear, amber-coloured. free from sludge)
GENUINE MACCLESFIELD BLUESTONE
CHEMICAL SULPHUR (23871)
BERGER'S ARSENATE (Powder or Paste)
COLLOIDAL LEAD ARSENATE
ENGLISH BLUESTONE SNOW
GENUINE BLACK LEAF 40
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In good working condition, SILENT RUNNING, and a bargain to the purchaser at £40.

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Control of Codling Moth of Apples and Pears

CALYX AND COVER SPRAYS — SPREADERS — USE OF LURE POTS — TREE BANDAGES.

Helpful Seasonal Advice.

HELPFUL INFORMATION regarding the control of codling moth in Apples and Pears has recently been issued by the Dept. of Agriculture (Victoria), as follows:—

In the majority of districts in Victoria, temperature conditions are usually favorable for the emergence of two or three broods of codling moth, each brood extending over a period of six to eight weeks. The activity of the moths of each brood is governed by temperature conditions, and the most favorable conditions for egg-laying are warm evenings, with temperatures of approximately 60 deg. F. Except in certain cooler districts, such as Stanley, where only one brood is active, spray applications will be required throughout the season.

For cover sprays to be most effective, it is essential to determine when moths are present and active. Fortunately suitable lures will attract and trap a proportion of the moths in the orchard and the greater the number present, the greater will be the number trapped in lures, providing temperature conditions are favorable. From the typical lure chart recently issued, showing the number of moths trapped each week, it is obvious that the prominent "peaks" represent periods of great importance in codling moth control. Sprays must be "timed" to deal with such periods of activity.

Growers are recommended, therefore, to **use lure records** as a basis for "timing" the cover sprays.

Recommendations.

The Calyx Spray:

This spray is necessary to prevent infection of the fruit at the calyx, and can only be effective if the protection is given early in the season before the calyx closes. A thorough calyx spray ensures protection of this portion of the fruit throughout the season.

Apples: At petal-fall apply arsenate of lead, 5 lbs. of paste, or 2½ lbs. of powder, in 80 gallons of water. Two calyx sprays are recommended for varieties which blossom irregularly; e.g., Rome Beauty and Jonathan, to ensure that the majority of the calyces are protected. In such cases apply the first spray before petal-fall has been completed (about 80 per cent. petal-fall), and the second seven to ten days later.

Pears: Advantage is taken of the fact that the calyx of Pears closes slowly and can be more effectively filled with lead arsenate at a delayed stage.

At the delayed calyx stage, about three weeks after petal-fall, but before the Pears turn over, apply arsenate of lead 5 lbs. of paste or 2½ lbs. of powder, in 80 gallons of water. This spray may be combined with Bordeaux mixture spray 3-3-50 (or 5:5:80), where such is required, for the control of black spot.

THE TIMES OF APPLICATIONS of lead arsenate or ovicidal white oil sprays, must be determined by the aid of lures in order to be most effective and to reduce the number of sprays to a reasonable minimum.

Apples: Apply arsenate of lead 5 lbs. of paste or 2½ lbs. of powder, in 80 gallons of water, or summer white oil 1 gallon in 60 gallons of water (1-1/3 gallons in 80 gallons of water. (See Notes.)

Where seasonal conditions warrant the continued application of lime-sulphur sprays after petal-fall, care should be taken not to apply white oil within three weeks of a lime-sulphur spray, otherwise serious injury may result. In such circumstances, arsenate of lead should be used as cover sprays until the risk of injury has passed.

Pears: Apply arsenate of lead 5 lbs. of paste or 2½ lbs. of powder in 80 gallons of water. (See Notes.) White oil cover sprays can be used as effectively as on Apples, but clean-skinned varieties sprayed late in the season are liable to "color up." This factor should be considered where export Pears are concerned.

Notes:

1. When it is necessary to combine lime-sulphur and lead-arsenate, add the latter to the diluted lime-sulphur and spreader **immediately** before spraying. For this combination spray, lime casein spreader ½ lb. in 80 gallons, is recommended.
2. For the control of late or summer black spot, 6 ozs. each of bluestone and freshly slaked lime should be included in each 80 gallons of lead-arsenate or white oil. Add lead arsenate to the vat containing the diluted Bordeaux mixture.
3. For 100 gallon vats, the following quantities are used to make sprays of the same strength as previously set out for 80 gallon vats:
   Lead arsenate paste, 6 lbs.
   Lead arsenate powder, 3 lbs.
   White oil, 1-2/3 gallons.
4. **Spreaders:** Growers are warned to avoid the use of large amounts of spreaders in their spray mixture because excessive "run-off" may occur and so reduce the cover. With **arsenate of lead,** ¼ lb. to ½ lb. of lime-casein spreader is ample or, if a sticker is desired, one pint of summer white oil or one pint of red oil per 80 gallons of spray mixture is sufficient.
5. A combination spray of lead arsenate (5 lbs. in 80 gallons) and white oil (1-60) has not been recommended because of the subsequent difficulty in the removal of the arsenical residue. If growers employ this spray or use one pint of white oil emulsion or red oil (as a spreader) in their usual lead arsenate sprays, it is advisable to add ½ lb. of lime casein spreader also, or 6 ozs. of freshly slaked lime per 80 gallons of spray mixture. This will minimise the danger from arsenical injury.
6. **Warning:** The application of summer white oil alone or in combination with lead arsenate to the variety **Cleopatra,** particularly within two months of harvest, is likely to cause severe staining of the fruit, and therefore the use of white oil cannot be recommended for this variety.

Codling Moth Lures:

1. Lures are wide mouthed jars of about one-pint capacity, containing a 10 per cent. solution of any one of the following materials: — Golden syrup, molasses, cider, Apple juice, sweet wine lees or malt vinegar.

2. Twenty lures should be suspended in trees distributed over an area of one to two acres.

3. Lures should be examined at least once a week to record the number of moths trapped. The aim should be to maintain an adequate cover during periods of moth activity and to apply sprays within a week of "peak" periods.

4. Lures must be recharged weekly with fresh solution and kept in a clean fresh condition. A trace of bluestone will check fermentation.

5. Lures should be established by the second week in October.

6. The codling moth is small, measuring from ½ to ¾ inch across the outspread wings, which are of general brown color banded with grey. The most distinctive feature is the large, oval dark brown spot with copper colored streaks near the tip of each forewing.

Codling Moth Tree Bandages:

1. Growers are recommended to place either corrugated cardboard chemical bandages or bag bandages around the butts of trees to trap larvae leaving the infected fruit.

2. Bands should be in position by the end of November.

3. Bag bands should be of heavy quality sacking and must be examined every 10 to 14 days to destroy larvae.

4. Before applying bands, the butts and forks should be scraped to remove loose bark. If done in the winter many larvae will be destroyed.

VERMONT FIELD DAY.

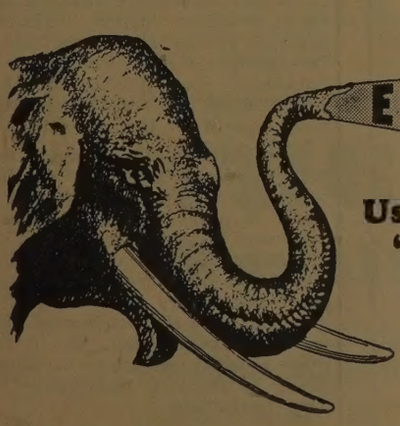
Thursday, October 5, 1939.

Under the auspices of the Victorian Fruit Marketing Association, the Southern Victoria Fruitgrowers' Association, the Southern Victoria Pear Packing Company, and the East Burwood and Doncaster Districts Fruitgrowers' Association, the Annual Vermont Field Day, will be held on Thursday, October 5, 1939 at the orchard of Mr. F. G. Beet, Railway-road, Vermont.

Included in the programme are the following:—Address by Mr. J. L. Provan, B.Ag.Sc., Demonstrations by Mr. F. J. Greatorex: Refurnishing of Fruit Trees; also demonstrations will be given of tractors, ploughs, sprays, etc. As usual lunch will be available in the marquee and buses will run at frequent intervals from the Mitcham Station.

An added attraction to this year's Field Day, will be the Apple Packing Competition for school children, conducted by the Southern Victoria Pear Packing Company.

This Field Day is the biggest thing of its kind in the State. Visitors are cordially welcome to attend.



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Extract from "BETTER FRUIT," March, 1937, by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: CODLIN MOTH COVER SPRAYS—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

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SP92

Control of Black Spot

(By the Tasmanian Horticultural Division.)

OF THE SEVERAL alternative sprays designed to take the place of early Bordeaux applications, none at the present time appear to have the possibilities of Cuprous Oxide. This chemical is a reddish-brown powder containing 50 per cent. copper, and disperses readily when stirred into water. The English trade name is "Perenox."

A small sample was made available to the Tasmanian Department of Agriculture for trial in September last year, and, although rather late for a comprehensive trial on all varieties, two small tests were made at the end of that month with a view to extension should these preliminaries prove satisfactory. When applied on September 29 and 30, the trees, which were of the "Cleopatra" variety, had passed the "green tip" stage, and in some instances had reached the "green cluster" stage. It was decided, however, to apply the preparation at a strength of 6 lbs. to 100 gallons so that its liability to cause russet, and its fungicidal reactions, might be fully tested. Adjacent trees were sprayed with 6-4-40 Bordeaux for comparative purposes, and several trees in the area were left unsprayed.

Subsequent treatments with Lime Sulphur and Colloidal were similar in both the Bordeaux and Cuprous Oxide plots.

Black Spot: Apples from the treated trees were harvested on April 4, all the fruit being counted and graded into "'badly infected" (over ¼ in. aggregate), "slightly infected" (under ¼ in.) and "clean." Analysis of the results showed that 65 per cent. clean fruit was produced on the trees sprayed with Cuprous Oxide as compared with 47 per cent. clean fruit on the row treated with Bordeaux. In addition, the percentage of "badly infected" fruit in the Cuprous Oxide plot was much lower than that in the Bordeaux plot, being 17 per cent. as compared with 28 per cent. Only 5 per cent. clean fruit was harvested from unsprayed trees.

Russeting.—It was evident at an early stage that considerable russet would be produced on the matured fruits in the plot sprayed with Cuprous Oxide, and this was particularly bad in the second area treated. About 75 per cent. of the fruit was affected to a greater or lesser extent, compared with about 35 per cent. in the Bordeaux plot, In addition, on the average, the russet on individual fruits was more severe where Cuprous Oxide had been applied. "Scarlets" sprayed at the same time as the "Cleopatras" dropped heavily, though "Sturmers" were affected to only a slight extent, the fruit being moderately smooth for the variety.

From these results it would seem that Cuprous Oxide is a fungicide worthy of more extended trial at reduced strengths and during different periods of bud development, and it is proposed to test this during the coming season. If these additional tests prove satisfactory and the product is obtainable at a reasonable price, there seems every indication that it may prove a useful addition to the present range of spraying materials.—"Tas. Jour Agric."

Office Boy: "There's a man outside, sir, that wants to see you about a bill you owe him. He would not give his name."

"What does he look like?"

Office Boy: "Well, he looks like you'd better pay it."

Control of Black Spot of Apples and Pears

Importance of Spraying at Correct Periods

Tested Spray Programmes as Recommended by the Dept. of Agric. (Vic.).

THE SUBJECT of Black Spot control is of great importance to the Apple and Pear industry.

After numerous experiments and field tests, the Dept. of Agriculture of Victoria has issued the following recommendations to growers:—

Control of Black Spot of Apples.

The various stages of growth at which sprays are applied are as follow:—

1. **Green Tip:** This is recognised when the bud scales have separated from the majority of the blossom buds and the tips of the green folded leaves are just visible.
2. **Finger:** The young green leaves have separated from the blossom buds which are beginning to separate in the cluster.
3. **5-10 per cent. Blossom:** i.e. when 5-10 per cent. of the flowers have opened.
4. **Petal-fall:** i.e., when the majority of the petals have fallen.

Schedule 1:

For varieties liable to russet, such as Jonathan, London Pippin, Yates, Rokewood, Gravenstein, etc., the following schedule is recommended:—

At the "Green Tip" stage apply Bordeaux Mixture, 6.4.40.

At the "5-10 per cent. Blossom" stage apply Lime-sulphur (20 per cent. polysulphide content), 2¼.80.

At the "Petal-fall" stage apply Lime-sulphur (20 per cent. polysulphide content) 1½.80.

At a stage **14 days after the petal-fall application,** apply Lime-sulphur (20 per cent. polysulphide content), 1.80. See Note 3 re combination of Lime-sulphur with Arsenate of Lead.

For the Jonathan variety Bordeaux Mixture should be applied at a **slightly earlier** stage than the Green Tip described above.

Schedule No. 2. (The Bordeaux Schedule):

This programme is suitable **only for varieties which do not russet readily,** and should not be used for Jonathans, London Pippins, Yates, Rokewood and Gravensteins.

At the **"Green Tip"** stage apply Bordeaux Mixture, 6.4.40.

At the **"Finger"** (no later) stage apply Bordeaux Mixture, 3.3.50.

Control of Summer Spot.

IF THE ABOVE schedules have been carefully adhered to, little trouble should be experienced with late Summer black spot. If late spot does appear, 6 ozs. each of bluestone and freshly slaked lime should be included in each 80 gallons of lead arsenate or white oil sprays. Growers who prefer to use lime-sulphur should use same at a strength of 1.80. (See Note 2.)

Notes:

1. If a proprietary brand of slaked lime (hydrated lime), e.g., "Limil," "Snowflake," etc., is used for making Bordeaux mixture, the 6.4.40 formula becomes 6.6.40, the 3.3.50 becomes 3.4.50, and the 1.1.50 becomes 1.1½.50.
2. Spray injury may result if Summer oil sprays are applied within three weeks of an application of a lime-sulphur spray.
3. When it is necessary to combine lime-sulphur and lead-arsenate, add the latter to the diluted lime-sulphur and spreader **immediately** before spraying. For this combination spray, lime casein spreader ½ lb. in 80 gallons is recommended to reduce the risk of spray injury.
4. Efficient spraying, at all stages, is essential for the control of black spot. Care should be taken not to "miss" the tips of leaders.

Spray Forecasts:

In districts where Demonstration Plots are established the Orchard Supervisor will advise growers when to apply sprays per medium of notices posted in prominent places or published in local papers or in the form of circulars. In addition, spray advice based on reports from all Orchard Supervisors will be broadcast from the following stations:—

3LO "Market Session," Monday and Friday evenings, commencing at 9 p.m.

3UZ "Man on the Land Session," Tuesday mornings, 6.30 to 7 a.m.

Control of Black Spot of Pears.

THE VARIOUS STAGES of growth at which sprays are applied are as follow:—

1. **Delayed Green Tip:** When the maximum number of blossom buds have brown scales (bracts) separating and tips of green folded leaves are just visible.
2. **Finger:** When green leaves are separated from blossom buds which are beginning to separate in the cluster; **but before white petals appear.** (Note: Odd blossoms only may be showing white petals. If a 6.4.40 Bordeaux Mixture spray is applied later than this stage russet may occur.)
3. **Late Calyx:** About three weeks after the fruit has formed.

Williams, Beurre Bosc:

At "Delayed Green Tip" stage apply Bordeaux Mixture, 6.4.40.

At "Finger" stage apply Bordeaux Mixture, 6.4.40.

At "Late Calyx" stage apply Bordeaux Mixture, 3.3.50 combined with the first arsenate of lead spray.

Josephine and Winter Cole:

Only one Bordeaux Mixture spray (6.4.40) should be applied, and this will be at the early **Green Tip** stage. This stage is slightly earlier than that described as "Delayed Green Tip" above. Any further Bordeaux Mixture sprays will russet this variety.

Winter Nelis and Madame Cole:

At "Delayed Green Tip" stage apply Bordeaux Mixture, 6.4.40.

At "Finger" stage apply Bordeaux Mixture, 6.4.40 but this application **must be completed before any petals show pink.**

At "Late Calyx" stage apply Bordeaux Mixture, 3.3.50. This spray **must not be applied within three weeks after petal fall.** This spray may be combined with the first arsenate of lead spray.

Packham's, and Other Clean-skinned Varieties:

At "Delayed Green Tip" stage apply Bordeaux Mixture, 6.4.40.

At "Finger" stage apply Bordeaux Mixture, 6.4.40.

At "Late Calyx" stage apply Bordeaux Mixture, 1.1.50 combined with the first arsenate of lead spray.

Control of Summer Spot.

IF THE EARLY Bordeaux mixture sprays have been efficiently applied, little trouble should be experienced with Summer spot. If Summer black spot does appear, a Bordeaux mixture, 1.1.50 can be applied, either alone or combined with an arsenate of lead spray, to Williams, Bosc and Packham's. For Josephine, if necessary, 6 ozs. bluestone and 6 ozs. freshly slaked lime can be added to 80 gallons of arsenate of lead spray, for the control of Summer spot.

Notes:

1. If a proprietary brand of slaked lime (hydrated lime), e.g., "Limil," "Snowflake," etc., is used for making Bordeaux mixture, the 6.4.40 formula becomes 6.6.40, and the 3.3.50 becomes 3.4.50. The 1.1.50 becomes 1.1½.50.
2. Thorough spraying at all stages is essential for the control of black spot. Care should be taken not to "miss" the tips of leaders.

W.A. FRUIT PUBLICITY.

Western Australia still continues her campaign for the eating of more Apples and Pears. The limerick competition has been concluded, with consolation prizes of 10 cases of Apples awarded to ten competitors. Messrs. Metters Ltd. co-operated with the Publicity Committee in this enterprise. Circular letters and pamphlets have been issued to schools re the handwriting competition, and arrangements have been made for the winning entries to be displayed at the Perth Royal Agricultural Show.

Broadcasts are being given over National Stations, and talkie slides shown at various theatres.

EASY HOUSE BUILDING.

Cement Block-Making Machine.

Visitors to the 1939 Royal Melbourne Show should make a point of visiting Stand 32 in Lennon-avenue, and seeing the Lightning "Homebuilder" in operation. This handy, easily-operated, and cheap machine allows any unskilled handy man to make cement bricks out of sand, gravel, clinkers, or, in fact, any aggregate that will mix with cement.

Obviously such a building material is most inexpensive, and Mr. Geo. Mawman, a qualified mechanical and structural engineer, after three years of experiments, hit upon the secret of strong, easily-made, and economical building material. The Homebuilder provides moulds of various sizes which produce a pleasing form of brick or block to suit almost any requirement for dwelling houses, garages, storage sheds, garden fences or any other cement-brick requirement.

Made in various sizes and with fittings that will give various designs in facing effect and for either inner or outer walls, the simplicity of operation appeals to all. Mr. Mawman has supplied these machines to every State in the Commonwealth, to New Zealand and South Africa, and farmers, planters, and pastoralists, as well as city residents, speak highly of the houses constructed of bricks or blocks moulded by the Homebuilder.

See these machines in operation at Stand 32 at the Royal Melbourne Show, and see how easy it is to make your own house or store. If not attending the Royal, write Mr. Geo. Mawman, manufacturer, 149 Bay-road, Sandringham, Vic., or telephone him, XW 2995. "Homebuilders" may also be seen at the city showrooms of J. H. Rudd Pty. Ltd., 105 William-street, Melbourne.

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APPLE BLACK SPOT (Venturia inaequalis) INVESTIGATION

ERADICANT EXPERIMENTS.

(By J. O. Henrick, Plant Pathologist, Tasmanian Dept. of Agriculture.)

THE TESTS have been designed to use, during the period from "leaf-fall" until the end of Winter, materials which are of value to the soil, and which would either assist decomposition of fallen leaves or have toxic effects on certain fungi.

As the two years during which the tests have been in progress were ones of low Winter and Spring rainfall, it will be necessary to conduct them for a further period so as to obtain results for normal and wet years.

This report will be confined to giving a summary of the treatments used and the results so far obtained, no reference being made to technical procedure and experimental details except in so far as will be necessary to the explanation of the summary.

For the information of orchardists it may be mentioned that the "ascospore" is the type of spore (seed) produced by the fungus which has over-Wintered in the dead leaves, and this spore when mature is discharged into the air and may alight on buds or leaves, and if moisture be present where it alights, germination takes place and a "spot" is produced.

1937-38 — Initial Tests.

A sufficient number of heavily infected leaves were selected in the latter part of the Winter of 1937, and divided into thirteen lots for "one-spray" treatment and two lots for checks—"untreated."

The materials used in the treatments were: Urea; Sulphate, Chloride and Carbonate of Ammonia; Sulphate and Chloride (Muriate) of Potash; in the proportions of 1 lb. to 1 gallon (10 per cent.) and 2 lbs. to 1 gallon (20 per cent.); and Lime Sulphur (commercial), 1 part in 8 parts of water.

The sprayings were carried out in the laboratory and each set of treated leaves was placed in a spore trap box in the open. Two "untreated" sets for checks were also placed out.

After every rainfall examinations for Black Spot ascospore discharges were carried out until the end of December, 1937, many of the leaf samples having disintegrated by this time.

The results of examination showed:

(a) Black Spot ascospore discharges from "untreated" leaves commencing on 5/10/37 ("full-bloom" stage) with a light discharge, followed by heavy discharges on 15/10/37 and 19/10/37, and a light one on 17/11/37. After this date no further discharges were observed.

(b) No Black Spot ascospore discharges were observed from "treated" leaves.

For the particular season, it would appear as though the treatments checked the production of ascospores.

1938-39 Tests.

Three trials were laid down in "spot infected" orchards to test some of the previous year's treatments under field conditions.

Sprayings were done in the orchards, arrangements made to prevent loss of leaves or admixture by other leaves, and regular supplies were obtained for ascospore discharge examination.

On the first area 10 per cent and 20 per cent solutions of Sulphate of Ammonia and Sulphate of Potash were used separately and as "followers," and Lime Sulphur 1 part to 8 parts of water.

On the second area, 5 per cent., 10 per cent. and 15 per cent. solutions of Chloride of Ammonia, and on the third area Muriate of Potash at similar strengths were tested straight-out and for comulative effects. Areas 2 and 3 were 12 miles distant from Area 1.

"Treated" and "untreated" leaves were examined from 10/8/38 onwards for Black Spot ascospore discharges after rain, and notes were taken of the effects on "leaf-character." These examinations were continued until 29/12/38, by which time leaves treated with (a) Sulphate of Ammonia, (b) Chloride of Ammonia, (c) Sulphate of Potash, low percentage, and (d) Muriate of Potash, graded from complete to partial disintegration in that order; untreated leaves were in a condition similar of those treated with Muriate of Potash; those treated with (a) Sulphate of Potash, high percentage, and (b) Lime Sulphur were almost wholly preserved.

This was a "late spot year" in the orchards, the first indications being noted on 22/12/38.

Black Spot ascospore discharges from the "untreated" leaves in Nos. 2 and 3 areas commenced after rain on 31/10/38, there being six discharges up to and including 4/12/38. No discharge was noted after rain on 8/12/38, nor any more during the rest of the trial.

Discharges from the "untreated" leaves in No. 1 area commenced after rain on 5/12/38, there being three discharges up to and including 18/12/38. After the next rain on 22/12/38, no discharge was noted, nor any more during the rest of the trial. No black spot ascospore discharges were noted from "treated" leaves.

Summary and Conclusions.

(1) Ammonia compounds increased the rate of leaf decomposition;

(2) Under the dry conditions prevailing all the leaf treatments appear to have had an inhibiting effect on ascospore formation both in the field and laboratory-field trials;

(3) The effects of the various treatments need further investigation over wet and normal seasons before the value of any or all of them as preventive of ascospore formation can be decided.—"Tasmanian Journal of Agriculture."

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Minimum Polysulphide Sulphur, 20 per cent. Package, 44 Gal., 4 Gal.

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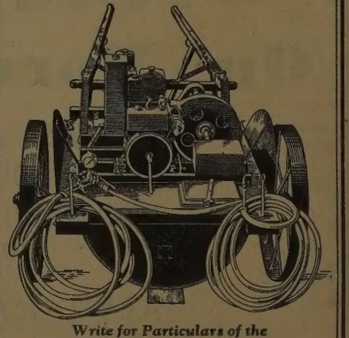

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Control of Canary Fly

(By P. H. Thomas, Chief Horticulturist, Tasmanian Department of Agriculture.)

DURING the Spring and Summer of 1938, a series of experiments was carried out by the Horticultural Division, with the object or reducing the costs of controlling Canary Fly (Typhlocyba frogatti) involved in using Nicotine Sulpate for both applications.

Observations carried on over a number of seasons have demonstrated that the application of Nicotine Sulphate either alone or in combination with Arsenate of Lead or Sulphur sprays has proved the most effective control of this pest, the periods of application recommended being:—

(1) Before the majority of newly hatched nymphs reached the winged stage.

(2) About three weeks later.

Investigations have shown that these are the most vulnerable periods in the known life cycle of the insect, and where such sprays have been carefully timed and applied the results have been generally satisfactory and no serious economic loss, injury, or fruit blemish experienced.

In view of a number of complaints regarding the high cost of such treatments, it was suggested that the first Nicotine spray might be eliminated and Lime Sulphur substituted, it being contended that the toxic contact insecticidal properties of the latter would be equal to that of Nicotine, and a saving of costs thereby effected.

Two orchard plots were selected to test this theory—one in the Cygnet and one in the Cairns Bay district—both of which had been seriously infested the previous season and upon which the trees were showing a heavy egg deposit.

Section 1, in which the first Nicotine spray was replaced by Lime Sulphur, gave a good control of the pests, but the insects towards the end of the season were more numerous and it could be assessed as lightly infested.

Cygnet Plot.

Control of Canary Fly on these plots was obtained on similar lines to those which have been described, the two Nicotine sprays being superior to that where Lime Sulphur had been substituted as a first application.

This obtained up to the end of the year, but a light infestation was recorded in early January, necessitating a further application of Nicotine Sulphate to gain effective control.

As will be noticed, applications on the different sections were earlier than at Cairns Bay, whilst there is a lesser interval between the two sprays. This may have influenced the results, as an endeavour was made to put the sprays on to time-table when the weather was not entirely propitious.

At Cairns Bay, spraying was delayed, although the insects were maturing, until calm sunny weather occurred. This is necessary to obtain the full toxic effect of Nicotine preparations, and it has been found that careful application of sprays under such conditions substantially increases the effectiveness of the control obtained.

The experiments were conducted by the Horticultural Division in conjunction with Dr. J. W. Evans, Entomologist.

The spray programmes adopted were as follow:—

Cairns Bay Plot, Jonathan—Messrs. E. and H. Cairns.

Section 1—Application 2/11/38—Lime Sulphur (20% Polysulphide) . . . . . 1 gall.—50 galls. water
200 trees
Application 5/12/38—Nicotine Sulphate (40%) . . . . . 1 pint—80 galls. water

Section 2— Application 2/11/38—Nicotine Sulphate (40%) . . . . . 1 pint—80 galls. water
200 trees
Application 5/12/38—Nicotine Sulphate (40%) . . . . . 1 pint—80 galls. water

In each section Arsenate of Lead Paste, 1 lb. to 15 gallons of water was combined with the sprays applied, and at 5/12/38 a Collodial Sulphur, 1 lb. to 15 gallons, was also included.

Cygnet Plot, Democrat — H. C. Connor.

Section 1—Application 27/10/38—Lim Sulphur (20% Polysulphide) . . . . . 1 gall.—40 galls. water
150 trees
Application 24/11/38—Nicotine Sulphate (40%) . . . . . 1 pint—80 galls. water

Section 2—Application 27/10/38—Nicotine Sulphate (40%) . . . . . 1 pint—80 galls. water
150 trees
Application 24/11/38—Nicotine Sulphate (40%) . . . . . 1 pint—80 galls. water

In each section Atomic Sulphur, 1 lb. to 12 gallons of water was combined, 24/11/38.

Observations were made on both plots throughuot the season. No reliable system of counting or recording of infestation could be adopted, and it was decided to assess this according to the degree experienced, viz., very light, light, medium, heavy, very heavy.

Summary of Notes and Records.

Cairns Bay Plot.

At the Cairns Bay Plot, a complete control was obtained of the pest with the two Nicotine sprays (Section 2). This was maintained throughout the season and at the final inspection carried out on April 6, previous to harvesting, the foliage of the trees was in a healthy condition and the fruit free from excretum. Close examinations of the foliage revealed traces of the insects, but they were difficult to locate and infestation could be assessed as almost negligible.

Thanks are due to Messrs. H. C. Connor, Cygnet, and E. and H. Cairns, Cairns Bay, in placing their spraying plant and a portion of their orchards at the disposal of the Department.—"Tasmanian Journal of Agriculture."

The crop prospects for deciduous fruits are excellent, Apples being consistently good everywhere. The Pear crop from the Harcourt district will be much below normal. Prospects for stone fruits are variable.

Septoria, Anthracnose and Brown Rot are giving citrus growers a lot of trouble, largely as a result of the failure to take necessary precautions in the Autumn.

Pollination of Cherries

GRAFTING OF INTER-POLLINATING VARIETIES INTO ESTABLISHED BLOCKS.

RECENT INVESTIGATIONS into the pollination of Cherries has demonstrated that in the growing of this fruit, inter-pollination is necessary for the setting of satisfactory crops. In the cherry growing districts of N.S.W., areas of the main varieties of Cherries have been planted in large blocks consisting of the one variety.

Very little, if any provision was made at the time of planting for satisfactory inter-pollination of the varieties. Consequently, as the trees have reached a bearing age they have failed to set satisfactory crops of fruit.

To correct this fault it is necessary to introduce a satisfactory inter-pollinating variety (or varieties), in a sufficient quantity, into the Cherry blocks planted in this manner. The most satisfactory way to achieve this is to work over one tree in nine, or every third tree in every third row, to the desired variety.

In carrying out this operation (states a Departmental Fruit Instructor in an article in the "N.S.W. Agricultural Gazette) it is not necessary to cut the tree down to a stump. The head of the tree should be removed to a uniform height at which the average thickness of the limbs to be grafted is about 2 inches. It is better to remove the whole head of the tree, as this permits the grafts to make better and uniform growth.

After the top of the tree has been removed it will be noted that a number of the weaker and poorly placed limbs can be removed. Others can be cut to an outside lateral in such a way that they will not compete with the growth of the grafts. When this operation is completed there should remain only a reasonable number of well spaced stubs to be grafted with the inter-pollinating variety.

The strap, cleft or bark method of grafting can be employed in working over the stubs, with quite good results.

If the trees are young and the leaders sufficiently slender, the whip and tongue method of grafting can be employed with success.

However, whatever method of grafting is used, for a successful "take" it is necessary to carry out the work during the latter end of Winter and early Spring.

Observations made on the work carried out last season indicated that the most satisfactory time to graft Cherries in the Orange district is between mid-August and early September. In the Young district the work should be carried out between the latter end of July and the end of August.

The following are recommended as satisfactory pollinators for the main varieties of Cherries.

Variety.	Pollinator.
St. Margaret . . .	Blackboy.
Noble	Blackboy.
Early Lyons—	
Early districts .	Burgsdorf.
	Early Rivers.
Late districts .	Eagle.
	Early Rivers.
Napoleon	Florence.

It is noted that although about 100 acres of Valencias, Navels and Lemons are being planted in the Swan Hill district this year, many of the trees are being planted in unsuitable soils.

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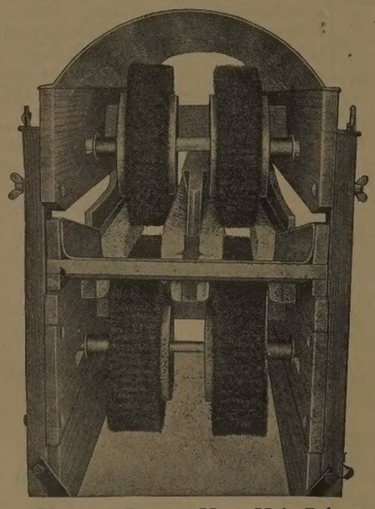

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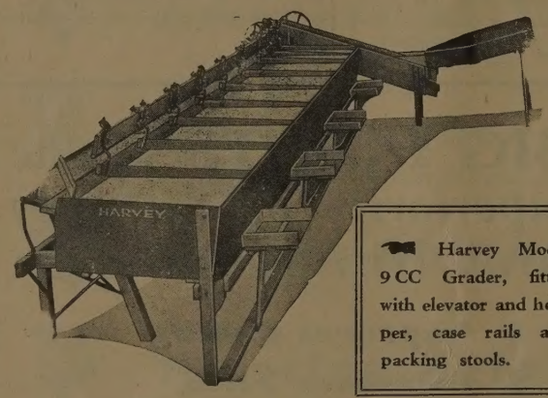

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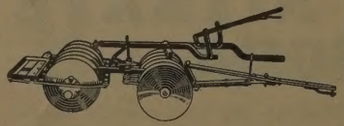

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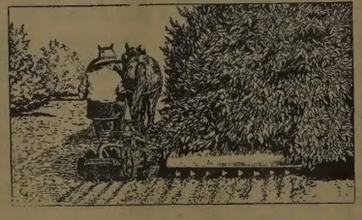

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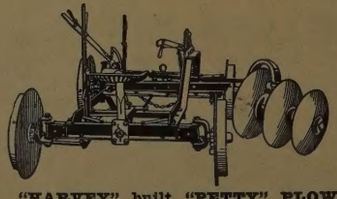

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Dried Fruits News and Notes

Murray Valley

RAIN FACILITATES GENERAL WORKING — GET ALL CLOSE WORK DONE BEFORE BUD BURST — THE IMPORTANCE OF NITROGEN — THE UNIT VALUE OF AN ARTIFICIAL FERTILIZER — BRITISH, SOUTH AFRICAN, CYPRUS AND AUSTRALIAN WINES TESTED BY WINEMAKERS — TWO METHODS OF ZINC APPLICATION TO VINES — A QUEENSLAND READER'S QUERIES ANSWERED — HOW POTASH IS USED IN FRANCE — SELECTION OF FRUITING WOOD — KING ISLAND MELILOTUS AND BOKHARA CLOVER — DOES PHOSPHATE EVAPORATE IN DRY WEATHER.

(By Our Correspondent.)

THE FIRST IRRIGATION of the season commenced on August 21. During July our rainfall only amounted to 46 points and the land became very dry. In August we have had an inch up to date. The rain has been of great benefit in facilitating the general routine block work. There has been just enough rain to allow the close ploughing to be done with the minimum amount of effort, the land turning over nicely and giving the ploughman that satisfying feeling of having done a good job.

There is always a rush to get as much close work done before the irrigation as possible, otherwise the young vine shoots which will not be long in making their appearance, will be knocked off in the process. The maxim which should be constantly kept in mind and acted upon is this: **"Close work must be done before bud burst."**

It is easy to fall into the error of believing that because the vines are still dormant there is still plenty of time to do the close work. However, if the first irrigation should be followed by warm weather, the buds make very rapid progress, and before the land is dried out sufficiently to allow the close ploughing to be done, we find a green line along the vine rods and kick ourselves for not having done the close work before the irrigation.

In the Spring a grower's fancy turns to thoughts of

fertilisers,

and yet how many have really gone into the matter of working out just what is paid for the various plant foods. In all artificial fertiliser the three major plant foods consist of **phosphoric acid, nitrogen and potash** —the most important of which is nitrogen.

When following the experiments made in the interests of horticulture and viticulture in all parts of the world, whether it is in South Africa, America, England, France or Australia, the dominating factor in production always seems to centre around that of nitrogen, and until the nitrogen requirements of a plant is satisfied, neither phosphoric acid nor potash will be thoroughly effective.

Having this in mind, it is essential to give a dressing of a nitrogenous fertiliser in the early Spring, so that the young shoots will make use of it at the proper time. Furthermore, we must see that the unit value of our nitrogenous fertilizer is not excessive.

To arrive at what is known as the unit value of any artificial fertiliser it is necessary to work out the cost of 1 per cent. An example is as follows:—Sulphate of ammonia costs £13/17/- per ton at our packing houses for a 20 per cent. nitrogen content. To find the unit (or 1 per cent.) value, divide the cost per ton by the percentage of nitrogen it contains, therefore we find the unit value of nitrogen about 13/10 in sulphate of ammonia carrying 20 per cent. nitrogen.

There are some varieties of fertilisers on the market containing a certain per centage of nitrogen which costs the grower 30/- per unit.

By working out the cost of phosphoric acid per unit you take the superphospate expressed as 45 per cent. water soluble phosphate and divide this into the cost per ton, which is £4/14/- and we get roughly 2/1 per unit value of water soluble phosphate. Sulphate of potash at £16/19/- per ton with a 48.60 potash content works out at roughly 7/- per unit. Before buying any artificial fertilisers, be sure to work out the unit value, otherwise you will find yourself considerably out of pocket.

Foreign Wine Samples by Australian Producers.

It is seldom that winemakers of this State have an opportunity of tasting bulk wines from other countries which come into competition with our own wines on the United Kingdom market, yet such an opportunity was afforded representatives of many wine makers on August 16th at Renmark.

Through the courtesy of Mr. D. T. Du Rieu (chairman of the Renmark Growers' Distillery Bourse) invitations were sent to other wine makers in the state **to sample a wide range of wines obtained from England, South Africa, and Cyprus, representing almost every bulk beverage wine made in those countries. Besides these wines there were also some samples of Australian wine drawn from bulk in England and returned to Australia for the purpose of comparison.**

The South African wines were sent to Australia in exchange for a parcel of Australian wines sent to that country through the kind offices of Mr. T. C. Seabrook and friends in Melbourne.

In all, there were 57 samples of wine staged in the upstairs cocktail lounge of the Renmark Hotel, where the tasting took place. There were four different makes of hock, four of dry red, seven types of sherry besides two samples of Cyprus sherry and one British made sherry type wine.

There were fifteen types of sweet white, some of which were Cyprus wines and others British wines, and eight samples of Australian wines obtained in England.

Seventeen samples of port type wines were on the table. Two samples of brandy and six samples of sparkling wines from South Africa, all of which were carbonated.

Comments by the various tasters were written down and will be aggregated and forwarded to South Africa. Not being a wine maker, the writer considers himself just a member of the general public, and as such would make the comment **that the Australian export white wines were in most cases superior to those of South Africa, yet the South African wine is sold for about a shilling per gallon more than the Australian wines of the same type. This is entirely due to the lack of effective organisation on the part of the Australian wine makers.**

The British wines, made up from concentrated must obtained from various sources and fortified with spirit not necessarily the product of the vine, appear to me to have a synthetic flavor and is entirely unpalatable to one accustomed to the clean flavor of Australian wines. But that these wines are acceptable to the British public is borne out by the fact **that over seven million gallons of these wines were made and sold in Great Britain last year. These wines are becoming a serious source of competition to our wines, on a price basis.** Until the wine industry is better organised I cannot see any improvement on the present position.

After the tasting of the wines had been completed an adjournment for lunch was made by the following wine makers: Excise Officers and members of the Renmark Distillery attending: Messrs. W. M. Gillard and F. J. Cosgrove (Messrs. Reynell & Sons), T. C. Angove (Messrs. Angoves Ltd), A. E. Peglar and H. R. Hazelgrove (Mildura Winery), A. H. and A. W. Kelly (Berri Co-operative Winery and Distillery), E. Miller (Waikerie Co-op. Distillery), R. M. Sibly, C. T. Madsen (Excise Department), C. P. Hazelgrove (Emu Wine Co.), M. Auld (Messrs. Robt. Bryce & Co. and Australian Wine Board), R. Warren (Messrs. Thos. Hardy & Sons), R. Kroneberger (Messrs. S. Smith & Son), W. F. D. Clark and J. Kilgour (Messrs. H. M. Martin & Son), and Messrs. K. Wiedenhoffer, R. Cowan, R. S. Evans (representing Renmark Distillery staff), Messrs. D. T. Du Rieu (chairman of directors), H. E. Edmonds (vice-chairman), T. Hooper, A. Philpott, R. Fisher, H. E. Eaton, O. Weste, directors of Renmark Growers' Distillery.

Zinc Application to Vines.

A good deal of interest is being displayed by growers in the irrigated settlements regarding the application of zinc in some form, to vines.

The writer has had some considerable success with zinc spray applied to Currant vines in November at a strength of 3 lbs. per 100 gals. of water. There is, however, another method used by Dr. W. H. Chandler, of the University of California, in which he uses a highly concentrated form of zinc which is painted on the freshly made cuts immediately after pruning. The latter method appears to bring beneficial results in the same season, whereas the zinc sprayed on the leaves does not act until the following season. I do not know whether zinc sulphate applied to the soil would bring about immediate results to vines but it is worth investigating.

Enquiry from Queensland.

We have had an enquiry from a Queensland grower on several items appearing in my notes published in the July issue of this Journal. The first of which is: What depth is potash put down in France? Is it scattered on the surface or cultivated in at a depth? I have asked Mr. Weidenhoffer, who states that he did not actually see the process of applying this manure, but as the French vine-growers do a lot of ditching or trenching, he believes that they put the manure in the trench. I would like to add to this that potash is a manure which should be placed as near to the root zone as possible.

From experiments carried out at the Berri Experimental Orchard with potash, sulphate of ammonia and phosphate to ascertain the penetrating influence of these manures, it was found **that the potash and phosphates had a limited penetration, extending very little beyond the furrow in which it was placed, but that sulphate of ammonia extended for some distance.** It would therefore be advisable to place both the potash and phosphates deep into the soil, where the roots have easy access to it.

You state "it is sometimes necessary to go out a little farther to get good fruiting wood. I only have a home orchard, but it is important and I have always been told to prune vines back to two or three eyes. Would you clear this up, also how can you tell good fruiting canes?" writes the grower.

My reference applied to **Sultana canes**, which have to be rod pruned produce a crop.

Most table Grapes are pruned to short spurs, say to two or three buds, including the two varieties grown here commercially, which are the Currant and Muscatel, because they produce fruitful buds close to the base, but **with the Sultana it is rare to find fruitful buds closer than the fifth bud from the base. A good fruiting cane is a tapering one of about 4 ft. long with eyes in the vicinity of 3 in. apart, having a very limited amount of pith. Long whitish canes with eyes 6 in. apart and carrying a wide centre of pith are not fruitful within the 3 or 4 ft. usually left at pruning time and should be avoided when laying down.**

"Is King Island melilotus the same as Bokhara clover?" Although they belong to the same melilot family, the growing habits of King Island melilotus differ from Bokhara clover and they are different strains. The King Island is an annual plant and seldom grows higher than 2 ft. to 2 ft. 6 in. in our district, whereas the Bokhara clover might grow up to 5 or 6 ft., and has a spreading habit with a deep tap root. I have known this plant to grow for several years on channel banks where it becomes a decided nuisance.

Another question is: "If superphosphate is sown in dry weather and left, and dry weather follows, does the phosphate evaporate?" Phosphate does not evaporate out of the superphosphate under dry conditions, but will, when rain occurs, be carried down into the soil for a short distance.

Superphosphate should only be put on the surface as a top dressing, but when it is used for fruit trees or vines it requires to be placed in the soil as deep as possible, that is, where the feeding roots can readily get the benefit of it.

On a soil with a high lime content, if the superphosphate should be put in at a shallow depth there is a strong possibility of it reverting to a citrate or an acid form, and would therefore become more or less locked in the soil. In this case it would take some time before it would be of any use to the vine or tree.

Superphosphate, as in the case of potash, has a somewhat limited power of penetration and does not, on this account, extend far beyond the limits of its application. Sulphate of ammonia on the other hand has a fairly wide range of influence and need not be placed deep into the soil.

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Vine Pruning Competitions

Interest Created at Red Cliffs, Vic.

(By D. G. Quinn, Victorian Government Viticulturist.)

WITH THE VIEW of raising the standard of vine pruning in the settlement, the Red Cliffs Branch of the A.D.F.A. appointed a Sub-Committee last year to inaugurate instructional classes and to arrange for an annual examination so that the candidates could obtain a Certificate of Competency issued by the Department of Agriculture.

The examination this year took place on August 21, when 43 candidates entered both the Sultana and Currant sections. At a later date it is hoped to arrange classes for citrus pruning.

The judging was performed by Messrs. Quinn, Giles and Godkin, of the Department of Agriculture, C.S. & I.R., and Lands Department, respectively, and 19 first class and 17 second class certificates were awarded.

In the

Sultana Section

each candidate was required to prune six vines, three of which were to be simply pruned and the balance pruned, pulled off and wrapped down; time allowed, 30 minutes.

At the conclusion of the examination the judges mentioned that the general standard of pruning showed a marked improvement on that of the previous year, and very few errors were made in the selection of wood.

The weakest general point lay in the wrapping down of the canes on the trellis wires. This operation is frequently looked upon as relatively unimportant, and is usually left to boys or unskilled pruners, but the judges stressed the fact that the future shape of the vine and the fruit carrying possibilities of the rods were largely dependent upon the discretion shown by the person entrusted to wrap down.

Some of the vines were also showing a fault very common to the district, namely, the crowns were getting too high. Three general errors were noted in the treatment of such vines. Some were drastically reformed, with the consequent loss of fruiting wood for the season, in other cases the most suitable rod, for replacing the arm at fault, was pruned correctly, but depressed instead of being carried out horizontally and so encouraged to develop strongly in the season prior to the replacement operation. Other high vines did not present any possibilities for reformatory treatment, but the circumstances necessitated the use of the top wire, which, however, many competitors failed to use.

Growing Importance of Competition.

Mr. Gordon Wake (Chairman of Sub-Committee), when thanking the judges and group leaders, and congratulating the competitors, said he was very pleased that so many new members attended the classes this year, and also because block owners were showing more interest in the project than was shown during the first year. **Instruction classes and competitions such as these could not fail in awakening greater interest in the finer points of pruning, and the beneficial influence would gradually be felt throughout the settlement.**

Certificates of Competency were awarded to:—

Sultanas.

First Class: J. Fitzgerald (87%); R. H. Sharman, S. Goodison, G. Leamon, and J. Wiffen (85); C. H. Cornie (84); T. H. Williams, A. Dean, and S. C. Hicks (83); B. Harcourt, R. W. Bailey, and J. Baker (82); J. Cook, S. Cahill, L. McGlashan, A. Jones, R. J. Gray, A. Jenner, and R. Stephens (80).

Second Class: S. Swift (79%); K. Rogers, L. Henry, T. Burns, W. Adams, H. Harris, and N. J. Jones (78); A. Dawe, L. Tupper, W. Eaves, A. Peers, R. Anderson, and P. Miller (75); A. Tupper, H. Allen, J. Miller, and B. Hazel, 72.

Passed in Currant Pruning.

N. J. Jones, S. Cahill, J. Cook, G. Leamon, A. Dawe, H. Harris, P. Stringer, B. Richardson, N. Stringer, R. W. Bailey, W. Adams, S. Goodison, T. Stephens, T. Reeves, T. Tierney, A. Tupper, L. Tupper, T. Burns, S. C. Hicks, R. J. Gray, W. Eaves, A. Peers, A. Jones, L. Henry, R. Anderson, J. Baker, J. Miller, P. Miller, A. Dean, R. H. Sharman, J. Fitzgerald, G. H. Cornie, B. Hazel, K. Rogers, A. Jenner, S. Swift.

S. AUST. DRIED FRUITS.

Tenth Annual Report of S. Aust. Dried Fruits Board.

Regulation of Industry and Effective Publicity.

THE TENTH ANNUAL REPORT of the South Australian Dried Fruits Board (S.A.) is to hand.

The total pack of dried vine fruits of the State for the 1938 season was 25,095 tons, being composed of 13,497 tons Sultanas, 9,046 tons Currants and 2,552 tons Lexias. Dried tree fruits totalled 3,017 tons, including 1,785 tons Apricots, 555 tons Prunes, 325 tons Peaches, 303 tons Pears and 49 tons Nectarines. This is an improvement on the previous year in which 19,060 tons of dried vine fruits were packed and 2,148 tons of dried tree fruits.

The S.A. quotas for the 1938 season, as fixed by the Commonwealth Dried Fruits Control Board, are as follow:—Sultanas 12.5 per cent., Currants 15 per cent., Lexias 45 per cent., Apricots 40 per cent., Prunes 65 per cent., Peaches 57.5 per cent., Pears 25 per cent., and Nectarines 82.5 per cent.

The arrangement, which was made for meeting the crisis created in the industry by the judgment of the Privy Council, has proved successful, and **as a result of negotiations between growers' voluntary organisations and marketing bodies, a renewal of the Voluntary Trade Agreement for the year 1938 was not considered necessary.**

Upon the Government being advised that a short amending Act reserving to the Board wider powers of **registration of packing houses and dealers** was all that was necessary to implement the recommendations of the Australian Agricultural Council, the amending Act was passed late in the year 1938.

Effective Publicity.

The Publicity Committee, which controls the Board's publicity activities, is the same as the Consultative Committee with the addition of the Chairman of the Australian Dried Fruits Association (Mr. H. D. Howie).

The Board contributed £750 to the nett expenditure of the Australian Publicity Committee, £4,485/11/7.

The programme, which covers all States, is varied in character. It includes organised window displays, free recipe books, radio talks, and exhibits at the various Royal Agricultural Societies' Shows. Display motor vehicles also tour the Eastern States. The publicity officers in charge of these vans arrange for window displays in country towns, and deliver addresses—from the health aspect—to students in the various schools visited. Lectures are also illustrated by films featuring the dried fruit industry.

Tasmanian News and Notes

WET WEATHER CONDITIONS — REPORTS OF FAULTY CARRIAGE OF FRUIT OVERSEAS — REWORKING IN PROGRESS — LIMITATION OF MANURE BOUNTY — CHECK ORCHARD PLANTINGS — CLAIMS AGAINST SHIPS FOR ALLEGED FAULTY CARRIAGE — REPRESENTATIVES TO JOINT CONTROL BOARD AND AUSTRALIAN APPLE AND PEAR COUNCIL MEETING — ELIMINATION OF DUCHESS PEAR FROM EXPORT LIST — CENTRAL PACKING SHED SYSTEM — BENEFITS OF GREEN MANURING — INTERSTATE MARKETS DISAPPOINTING — TASMANIAN PRODUCERS' ORGANISATION CONFERENCES — HUONVILLE DISTRICT CENTENARY CELEBRATIONS.

(By Our Correspondent.)

DURING THE PAST MONTH weather conditions in the north of the island improved a little, but still left a lot to be desired, and seasonal work is still delayed.

Several **overhead spray systems** are now installed in the Tamar Valley. Pruning is nearly finished, but so far it is still too wet to do much ploughing.

In the southern districts the past month must hold a record for wet days, the rainfall during the period being about double the normal in many localities. Consequently work on the orchards has been seriously delayed, the ground in many places being too wet even for pruning. Whether the abnormally wet spell will have a deleterious effect on the setting of fruit remains to be seen.

Reports of

Faulty Carriage

of fruit to the overseas markets are still coming to hand. This is a matter that the Control Board should take up with the shipowners representatives, as it is one of our most serious disabilities, causing loss not only on the fruit actually injured, but it also shakes the confidence of buyers. Several lots have been reported as frozen.

Preparation for

Reworking Unwanted Varieties

are in hand. Where this work has to be done the scions are being selected. **The Agricultural Department renders a lot of assistance in this matter, and collects and distributes scions.**

The limitation of the

Manure Bounty

to a maximum of £5 to any individual is being felt by fruitgrowers and others engaged in intense cultivation. No doubt it is affecting graziers also, perhaps to a greater extent, as they usually applied the cheaper manures in large quantities.

I notice in the West Australian notes that a timely warning is given not to rush in and plant more orchard until means of increased absorption are more evident than at the moment. This warning applies equally to other States for some time to come.

At the last meeting of the State Fruit Board the matter of

Claims

against the "Viking Star," "Jervis Bay," and "Tacoma Star" for alleged faulty carriage was further dealt with. **The Board considers that as this is a matter that affects all Australia, the Federal Government should be approached for financial assistance, and the Control Board has been asked to make the request.**

It was also decided that Messrs. Abel, Bulman, Smith and R. H. and T. G. Thomson be the representatives to the joint meeting of the Australian A. & P. Council and the new Control Board.

Members expressed regret that the Control Board had eliminated the **Duchess** (Williams) Pear from the export list as this is a good early Pear and does not compete to any extent with any other Australian Pear. The W.B.C., of course, is better sent to the canning works.

The elimination of this particular early variety will curtail the export season, and later, when they have been reworked, will add to the congestion in mid or late season. The quantity actually shipped does not coincide with the quantity grown.

The

Central Packing Shed

system is gradually extending. The Port Huon Co-op. Association is enlarging several of its sheds and last season started one at Nubeena and one at Premaydena. Messrs. H. Jones & Co. have one in operation at Beauty Point, and I hear an up-to-date shed is to be built at Woodbridge, in the Channel District.

The returns for **Pears from overseas** continue to be disappointing, and several lots have arrived in bad order; the "Port Adelaide" delivered a lot in variable condition.

The benefits of **green manure** crops in the orchards was very noticeable this Winter in checking soil erosion, the amount of soil lost being practically nil where the green crops had made fair growth in spite of the abnormal rainfall.

The interstate markets are not as buoyant as expected earlier in the season. No doubt the general economic position in N.S.W.—which does not appear to be very satisfactory—has its influence on the fruit trade.

If the **advertising campaign** is put under capable management it should have an influence in the near future.

The international situation is still causing anxiety, and the fact that the country districts responded so well to the call for the militia is having its effect on the farms, as a lot of time is taken up drilling, and most of the young men have joined. In some districts as many as 80 per cent. of those eligible have enlisted.

The recently circulated balance sheet of the Port Huon Co-op. shows the company in a healthy condition, and a dividend at the rate of 7½ per cent. is to be paid and further expansion of activities is contemplated in the immediate future.

The Tasmania Producers' Organisation is holding its conferences this month. As this organisation embraces all classes of primary producer, three conferences are held in various parts of the State. The membership is steadily increasing.

An impressive ceremony took place at Huonville on Sunday, August 12, commemorating the 100th anniversary of the first settlement in the district. The "Huon and Derwent Times" published a most interesting special number for the occasion.

Tasmanian Growers Visit Mainland

ORGANISED by Mr. J. T. McKinley, a party of 30 Tasmanian orchardists visited New South Wales and Victoria in August.

When in N.S.W. a civic reception was given by the Lord Mayor of Sydney, and the party was also entertained by the Sydney Fruit Agents, the Master Carriers' Asso., and the Newcastle Fruit Agents, for which much appreciation was expressed. Opportunity was also taken to inspect the unloading of fruit on Sydney wharves and the sales on the Sydney markets.

As a result of the experience gained it is believed that improvements in the trade will follow. The party visited Newcastle, Orange, Young and Batlow in New South Wales. They were impressed by the efficiency of the Batlow Co-operative Organization, the quality of the fruit and the packing.

Bad weather prevented the visit to Shepparton orchards. Cool stores around Doncaster were visited on August 24. Mr. McKinley and the party tendered a dinner to the members of the Apple and Pear Board, Victorian Fruit Exporters, and other guests. Mr. McKinley was presented by members of the party with an autographed letter of appreciation and a case of cutlery, also a fountain pen for Mr. McKinley's brother and a staff member (Mr. Shelton) who had assisted in organising the trip.

Mr. J. B. Mills spoke of the good work accomplished by the Apple and Pear Council, through the co-operation of growers, shippers and State Supervising Officers, also Government Departments. The Apple and Pear Publicity was having a good effect. The new Board was fully alive to its responsibilities and would continue the effort to have shipping facilities improved, including reasonably spaced arrivals in U.K.

Mr. W. M. Carne (Department of Commerce) spoke of developments in fruit juice manufacture in Europe, and the importance of this product from a health point of view.

Mr. H. W. Soothill stated that if propaganda lifted Apple consumption by 10 per cent. it would stabilise the industry and benefit the health of the people.

Mr. H. A. Baker, Secretary, Apple and Pear Board, spoke of the broad Australian outlook of the members of the Board.

Mr. R. E. Boardman described the educational propaganda now being conducted. Interesting speeches were also made by Messrs. D. E. Ryan, M. Vickers, L. S. Taylor, B. A. Watson, F. Cole, R. Canns, J. T. McKinley, A. A. Frankcombe, J. W. Barker, and F. R. Mellor.

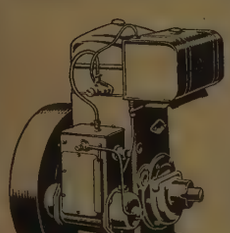
Mr. K. Weeding endorsed the value of the publicity effort and particularly amongst school children, and emphasised the necessity for high quality fruit to be supplied.

APPLE CANNING IN TASMANIA.

Favorable Response Reported.

The Apple canning industry which has been established at Spreyton, Tasmania, is regarded favorably by growers, as this provides an outlet for second grade fruit. It is reported that the demand for canned fruit is general, and at 5d. or 6d. lb., the housewife preferred the tinned Apple, which gave no trouble in preparing. The Sturmer, in particular, turned out of the cans in excellent order.

FOWLER TWO-WAY SWIRL SANDERS



FOWLER-SANDERS (England) DIESEL ENGINES embody a number of unique features. First in importance is their patented TWO-WAY-SWIRL PRINCIPLE. This ensures easy starting, complete combustion, and smooth running at all loads, with exceptionally low maximum pressures, and it is one reason why the FOWLER-SANDERS sets a new standard in engine performance.

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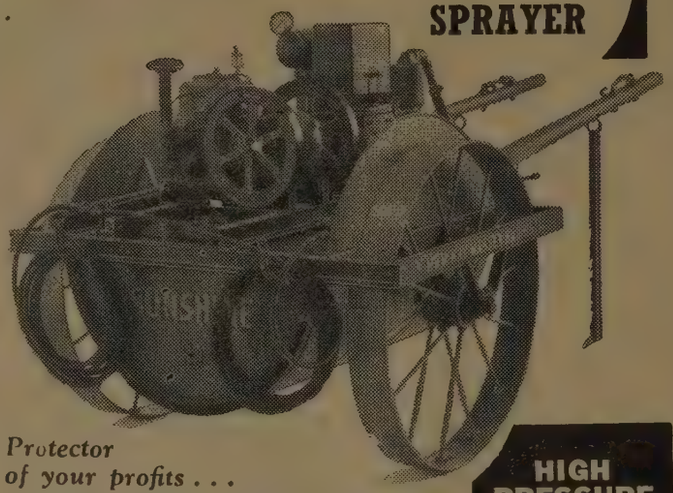
At the Royal SHOW

Orchard and vineyard equipment by Sunshine Massey Harris

The New SUNSHINE 2-WHEEL SPRAYER



Protector of your profits . . .

The Sunshine Two-wheel Power Spraying Outfit provides the greatest possible help in combating orchard and vineyard diseases and parasites.
It gives thorough coverage and powerful penetration, EASILY . . . QUICKLY . . . SURELY.
Will serve 4 nozzles or 2 guns simultaneously.
It delivers 4 gallons per minute at 350 lb. pressure with engine running at 600 r.p.m. Increased delivery obtainable by raising engine speed.
Pressure readily adjustable.
It is economical to buy and to run, easy to operate, light in draught and absolutely dependable for long trouble-free service.
The engine (Sundial 2 h.p.) can be removed quickly to drive other machinery, and just as easily replaced in its correct adjustment to the spray pump.

HIGH PRESSURE

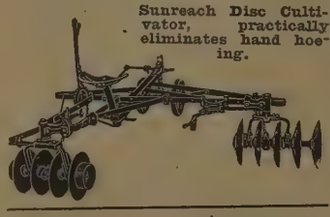
GENEROUS CAPACITY

LOWEST RUNNING COST

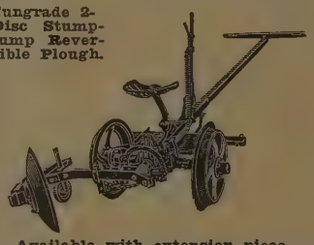
The Sunshine Spraying Outfit for use on dray or truck is equally outstanding in its field

A few examples from the Sunshine Massey Harris range of tillage implements for fruitgrowers

Sunreach Disc Cultivator, practically eliminates hand hoeing.

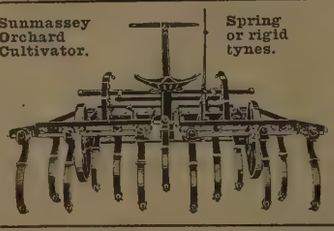


Sungrade 2-Disc Stump-jump Reversible Plough.

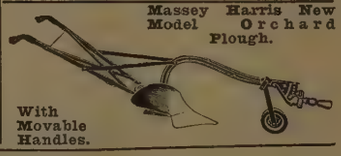


Available with extension piece for ploughing away as illustrated.

Sunmassey Orchard Cultivator. Spring or rigid tynes.



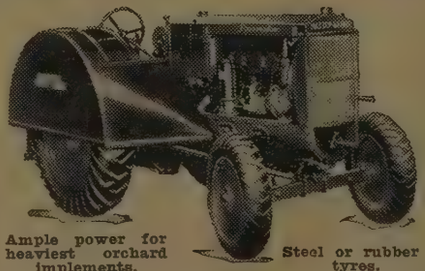
Massey Harris New Model Orchard Plough.



With Movable Handles.

Sunshine Massey Harris Orchard Pacemaker

the ideal tractor for fruitgrowers



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Sunshine Massey Harris Tractors lead the field for power, fuel economy, low upkeep cost and durability. This model also has special features of design for orchard work, being low set and streamlined, with shielded rear wheels and individual steering brakes for quick turning. Hoist and various cultivating implements can be attached.

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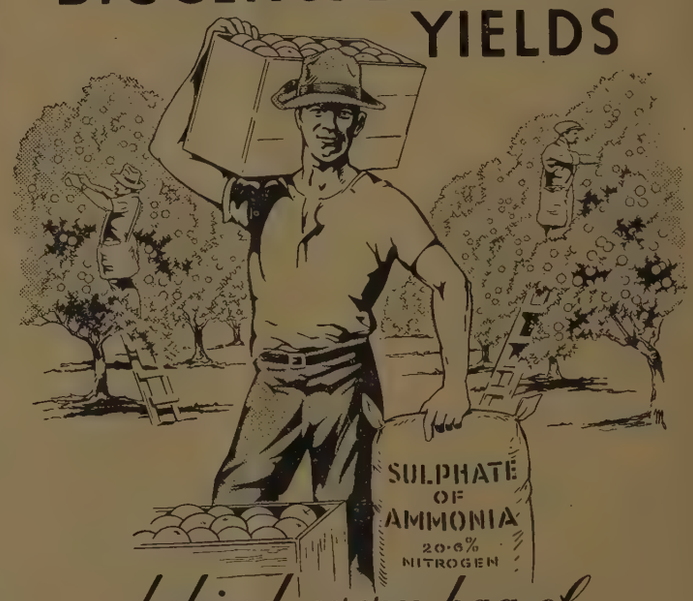

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H38/38

Tasmanian Monthly Orchard Notes

THE MINISTER FOR AGRICULTURE (Hon. T. D'Alton) received the following report relative to the conditions of orcharding throughout the State from the Chief Horticulturist (Mr. P. H. Thomas):—

Although rainfall for the month of July was below average throughout the State, the heavy and prolonged rains experienced during the early part of August have considerably hampered orchard work in all districts. **Pruning** and **cultivations** are therefore behindhand in the later districts, though good progress was made previous to the rains in other parts. Frosts and snow have occurred very generally and temperatures have been below average for the month; in many districts several inches of snow lay for some time, even at low altitudes.

Rainfall records received from the Commonwealth Weather Bureau are as follow:—Hobart, 187 points, compared with the average of 215; Launceston, 176, compared with 301; and Franklin, 443, compared with 296.

Spraying and Pest Control.

During the wet periods many growers took the opportunity to clean up their packing sheds and sterilise picking cases, destroying all refuse likely to harbour Codling Moth; bark scraping and the removal of Codling Moth bands has also been carried out, and should be completed prior to spraying. No time should be lost in repairing and cleaning spraying machinery and having everything in hand so that applications may be made at the correct periods. **The cold, wet weather appears to have held bud development in check, and the season is likely to be later than last.**

Stationary Spray Plants.

The benefits derived from the stationary spray plant are becoming more fully realised by growers each season.

The wet condition of the soil has made it impossible in most orchards to take a heavy mobile outfit on the area and whilst very few sprays, except the Winter oils, and nitro-caustic combinations, are applied previous to September, growers are visualising the predicament they would be in if similar climatic conditions are experienced later in the season, and they could not get on to their orchards. The stationary spray plant also facilitates application late in the season when the fruit is developed on the trees and work may be carried out efficiently in closely planted areas, where a mobile outfit would be difficult to operate. **The recent survey which has been made of these plants reveals that there are now approximately 375 installed in the different districts, most of which are driven off electric power units.** A number are in process of installation.

Fruit in Cold Storage.

Refrigerated storage space for fruit in Tasmania has been augmented to the extent of 115,000 cases by the new cold store which has been erected by Messrs. H. Jones & Co. Pty. Ltd., adjacent to the Hobart wharves. This new store is built on the most up-to-date lines, and is equipped with modern appliances for temperature, air circulation, and humidity control.

The Apple storage space normally available in this State now totals approximately 600,000 cases.

One of the principal seasonal disabilities in marketing Tasmanian Apples in New South Wales and Queensland is the price depreciation experienced by the arrival of a large quantity of shed stored fruit that growers have held until full maturity has occurred and export is forced upon them.

This happens almost regularly each season, the market, being lowered by the fully ripe mid-season sorts, generally recovers until the same position is reached with the late kinds, and a large quantity of fruit which is often shrivelled or showing signs of breakdown is forced upon the market. The provision of sufficient refrigerated space to permit the storage of at least seventy five per cent. of the mainland requirements appears to be an essential to orderly marketing and should generally improve the reputation and quality of fruit on these markets.

Advice regarding the quantities of Apples and Pears retained in Tasmanian cool stores at the commencement of this month was approximately **322,000 cases of Apples and 18,000 cases of Pears.** Returns for other States are as follows:—

New South Wales: 295,626 Apples, 17,973 Pears.

S. Australia: 140,118 Apples, 1,114 Pears.

Victoria: 576,000 Apples, 66,000 Pears.

Reworking.

Reports indicate that a large amount of reworking will be again carried out this Spring, and demands for scions are being received in increasing quantities.

Red Jonathan is in particular demand, and growers are advised to inform Instructors of their requirements immediately so that disappointments may be avoided. **Red Crofton, Lalla, Granny Smith, Delicious** and **Worcester Pearmain** are also in demand, and the limited supply of **Red Cox Orange Pippin** is practically exhausted. Amongst Pears, **Packham's Triumph, Beurre D'Anjou,** and **Comice** are in demand.

Packing Classes.

Pupils of the school packing classes are reported to be making rapid progress and not only are they becoming more efficient in the actual packing, but are obtaining a good knowledge of the packs, counts and grading requirements. **Arrangements are in hand, also, to conduct classes in grafting and refurnishing during the coming Spring in several centres.**

Stone and Berry Fruits.

With the return of sunny weather **Almonds** have come into heavy blossom, and both **Plums** and **Peaches** show an excellent promise of buds. **Apricots** appear to be somewhat erratic, but it is still too early to make reliable observations with this fruit.

Late planted young **Strawberry** beds have suffered severely in some areas during the last four or five weeks, heavy frosts and rains being responsible. It is likely that more Spring planting will be done than has been the case in recent years, and once the soil has become sufficiently dry this may now be commenced in the milder areas.

Bee-Keeping.

The cold weather has taken heavy toll on weaker swarms of bees, or those inadequately housed and protected against the elements. This applies particularly to those in boxes, and whilst it means that the owner will have fewer swarms to transfer to frame hives in Spring, it will also mean considerable reduction in the possible honey harvest next season.

Applications for registration are steadily coming forward, and those who have not yet completed these should do so without delay. Where the necessary forms have not yet been received, bee-keepers are advised to apply for these to the Department of Agriculture or obtain them from the District Inspectors at the earliest opportunity.

Port Huon Fruitgrowers' Co-Op.

SUCCESSFUL YEAR'S BUSINESS.

The Director's report and balance sheet to June 30, 1939, of the Port Huon Fruitgrowers' Co-operative Association Limited, Tasmania, are to hand.

The report states that, generally speaking, the overseas markets have been satisfactory, there being a marked increase in shipments to the Continent. In 1938, 234,225 cases were shipped to Continental markets, while in 1939, 434,820 cases were shipped. The Association sent 15.5 per cent. of the Apples shipped overseas to the Continent. 78,376 cases of Apples were sold to Continental buyers, or 18 per cent. of the shipments made to the Continent, viz., 434,820 cases. Arrangements are now being made to increase the Continental business, as the quota only refers to shipments to the United Kingdom, and any shipments made to the Continent represent additional overseas shipments.

Pulp Trading Account.

The year under review proved a record one as regards sales, which amounted to £58,525/10/11, and it is hoped that the pulp position will continue to improve. The sale of Fresh-kept, or unsweetened fruits, still continues to improve, and it is hoped to manufacture larger quantities in the coming year. The co-operation of the small fruitgrower is requested in this direction, by seeing that all fruit delivered is fresh, clean, and suitable for canning.

Profit and Loss Appropriation Account.

Due to increases in business generally, earnings increased by £877/5/8 over that of the previous year, while expenses of management increased by £95/17/2. After transferring the profit from Pulp Trading Account of £66/17/2 there remained £4,150/18/- for transfer to the Appropriation Account.

After transferring £2,841/3/4 to General Reserves, £600 to Bad Debts Reserve, and £500 to Income Tax Reserve, a balance of £4,409/11/1 was left. A dividend of 7½ per cent. will be paid, which will amount to £1,466/5/7, leaving a balance of £2,943/5/6 to carry forward.

The assets on land, buildings, plant and machinery increased during the year by £1,008/10/1, and depreciation written off amounted to £1,193/10/1, which reduced this asset from £38,715, as shown at June 30, 1938, to £38,530 at June 30, 1939.

The death of Mr. Carl Hansen, one of the directors, is recorded. On Mr. Hansen's death, Mr. J. R. Welling was appointed to fill the vacancy.

The Hon. W. H. Calvert, M.L.C., was congratulated on his appointment to the Export Control Board.

During the year **two new packing sheds** commenced operations, and consideration was given to the establishment of further buildings, with the result that already commencement has been made in the extension of the present sheds and the erection of further sheds.

Extensive alterations and additions are also being made to the Hobart factory, which will be completed before the commencement of the small fruit season.

The Directors are Messrs. W. H. Calvert (Chairman), F. Cole, J. Coombes, A. Dickson, P. A. Feil, C. W. Frost, B. J. Pearsall, L. R. Shield, and J. R. Welling. The Manager is Mr. J. P. Piggott, and the Secretary Mr. R. Johnston.

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Rootstock Work at East Malling

(By R. G. Hatton in "Scientific Horticulture," 1939.)

AN OUTLINE of the rootstock work of East Malling and of the results so far obtained. Rootstocks are necessary because:—

(a) it is usually difficult to raise temperate deciduous tree fruits on their own roots on a commercial scale.

(b) trees on their own roots are generally inferior in some respect to grafted trees,

(c) the rootstock enables control to be exercised over the size of the tree and cropping in relation, for instance, to soil type or planting distance.

Apples. No. IX, the most dwarfing stock, is suitable with proper care for a wide range of soils, although its anchorage is poor; there is no reduction in keeping quality of the fruits if picked at the right time, bearing in mind that it produces a rather earlier maturity. Nos. IV and VII are truly semi-dwarf, vigorous growers in youth and highly productive. 80-90 per cent of the 5 million Apple trees planted in Denmark are on No. IV. It blows over easily. No. VII is highly susceptible to crown gall. Nos. I and II, regarded as suitable for the bush trees of commerce, appear to be influenced by scion variety and growth conditions, e.g., Cox's Orange Pippin is semi-dwarf on I and vigorous on II, the reverse being the case with Lane's Prince Albert and Worcester.

Under dry conditions in England and Canada, trees on I are less vigorous than those on II. The only very vigorous stocks retained are Nos. XVI and XII; XVI brings the tree into bearing earlier and gives higher yields than XII. It is now the standardised vigorous rootstock of Germany (frequently under the name of Ketziner Ideal).

Since no stock is as yet ideal, research is still continuing.

Pears.

Quince stocks A. B and C, have been selected as the most reliable stocks for general commercial varieties. D is incompatible with too many varieties to be safe. B induces slightly better cropping and slightly greater vigor than A, C is dwarfing and good with shy cropping varieties, is susceptible to leaf spot in the nursery and sometimes makes a weak union. **Three wilding Quince varieties from Russia are under trial at East Malling.**

Seedling Pears used as stocks have shown great differences morphologically, botanically and incompatibility.

Selection work is in progress with a view to finding a stock to make medium bush trees for Pear varieties that are incompatible with Quince.

Double working trials on Quince rootstock have shown the Pears fertility, Hessle and Pitmaston Duchess to be successful intermediates with the majority of scion varieties.

Plums.

Myrobolan B produces the most vigorous trees and is compatible with most, but not all varieties.

Common Plum is markedly dwarfing, imparts resistance to Silver Leaf, especially with Victoria, but is incompatible with many other important varieties including Czar. Brussels is fairly dwarfing, except with Victoria it seems to give poor growth and crops, and it suckers freely. Common Mussel also has a dwarfing effect and suckers freely. Pershore (Yellow Egg) and Marianna give large crops and a moderate sized tree. St. Julien and Damas seedlings show great variability in vigor and compatibility.

No single rootstock of any of those mentioned is compatible with all scion varieties.

Research is directed to finding stocks which will produce small or medium trees of good performance.

Peaches.

Hale's Early and Peregrine have been used at East Malling as scion varieties. Brompton, Common Mussel, and two selections of Damas C and St. Julien A have proved satisfactory stocks. Peach and Almond stocks have not been tested.

Cherries.

Selected seedlings from Prunus Avium, Prunus Mahaleb and Prunus Cerasus have been propagated vegetatively and have been under trial from 12 to 16 years. Morello on Mahaleb has proved rather short lived; Morello on P. Cerasus has made small trees. A trial of sweet Cherries on 14 selected Mazzards shows differences in growth and yield.

Future work

includes trials of clones of P. Cerasus, with a view to forming medium or bush trees for sweet Cherry varieties.

Incompatibility.

Recent studies at East Malling indicate that incompatibility arises from mechanical weakness and obstruction at the union and that differences in cambial activity, rate of callus growth, date of leaf expansion and relative rate of growth of stock and scion are all involved.

Rootstock Influence.

The progress made in investigations into the source of rootstock influence is briefly noted and some account is given of the methods used.

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"I often think of the the days when the horse was my only means of power—when life was nothing but hard work, long hours and small profits.

"We've said goodbye to all that, Son. Today we have modern implements and the sturdy English FORDSON to take care of the really hard work on our property.

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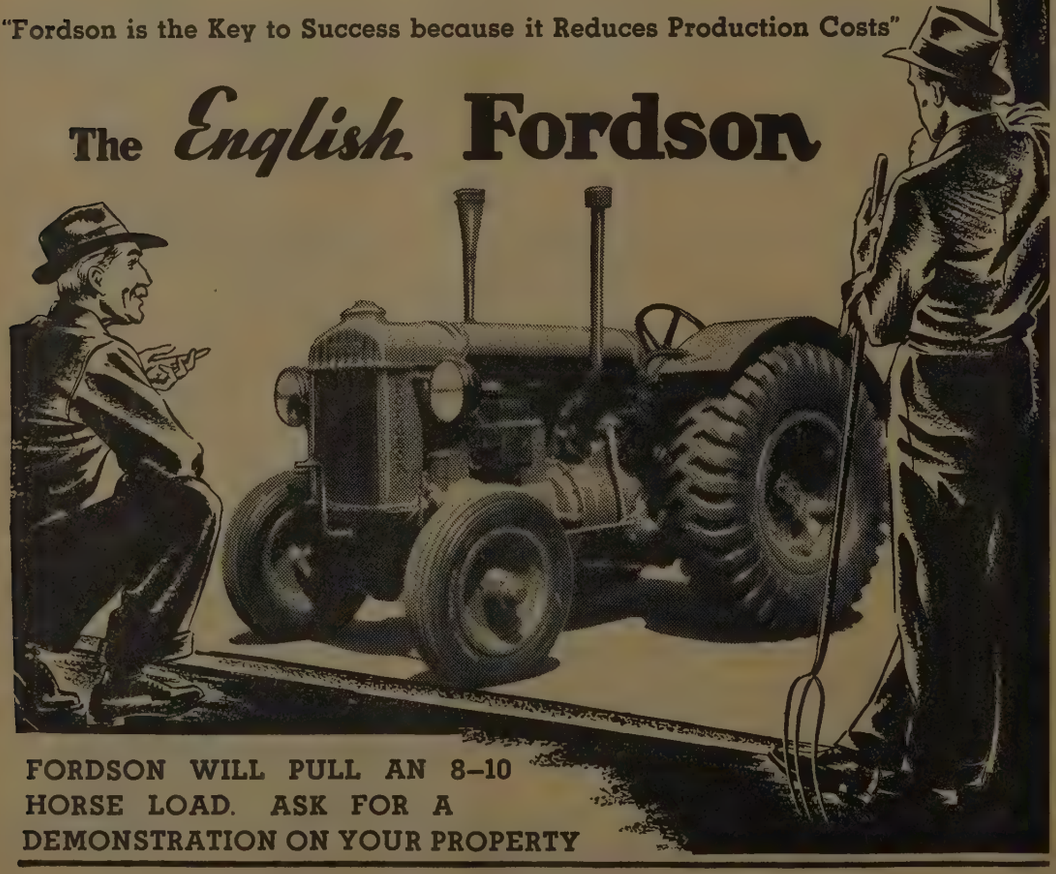

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BLOSSOM FESTIVALS.

Bright Carnivals in U.S.A.

Now Orange (N.S.W.) Will Have a Cherry Blossom Festival.

For many years past Apple blossom festivals have been held in several U.S.A. fruitgrowing centres.

At Wenatchee (State of Washington), last April, this bright function was held. There was an Apple Blossom Queen, with two charming attendants and 60 princesses. The Governor led the grand march. The proceedings included parade of decorated floats, band contests, school pageants, and picnics.

At Rogers (Arkansas), the Apple blossom festival attracted much favorable attention.

Similar events were held in fruitgrowing centres in Kansas, Kentucky, and Virginia.

It is pleasing to note that Orange, N.S.W., will have a Cherry Blossom Festival on October 9 to 15. This is being arranged by the local Horticultural Society.

The idea of fruit blossom festivals is a good one, and should be developed here. It would be excellent publicity for the industry. Picnics could be organised, addresses by prominent horticulturists, and possibly a team of motorists could be co-opted to take crippled children.

WANTED.

Gentleman (married), 25 years' experience fruit growing, **seeks position as working manager** of an orchard or any branches of the fruit industry. **Fully conversant with all latest methods.**

"NELIS"

C/o "Fruit World," Box 1944, G.P.O., Melbourne.

Goulburn Valley Notes

HEAVY RAINS AND FLOODING CAUSE LOSSES — INADEQUACY OF PRESENT DRAINAGE SYSTEM IN SHEPPARTON, ARDMONA AND KYABRAM DISTRICTS — PROSPECTS FOR GOOD SEASON IF WEATHER KEEPS FINE AT FLOWERING PERIOD — ANNUAL MEETING OF AUSTRALIAN CANNING FRUIT GROWERS' ASSOCIATION — OFFICE BEARERS ELECTED — TIN PLATE PRODUCTION IN AUSTRALIA — OVER-PLANTING OF CERTAIN VARIETIES — CONTRACT BETWEEN NORTHERN FRUITGROWERS' ASSOCIATION AND S. J. PERRY & CO. FINALISED — SPRAYING FOR APRICOTS, PEACHES AND PEARS — S.P.C. CANNERY EXTENSION — GAS STORAGE TRIALS — ROAD GRANT.

(By Our Correspondent.)

THE MONTH of August has won the distinction of being one of the wettest and most boisterous months ever experienced in the Goulburn Valley. In the first week 3 inches of rain were recorded, followed by gales and rainstorms, which lasted for a fortnight, with the result that the whole countryside was flooded.

In the Ardmona and Kyabram fruit growing districts, where there is no proper drainage facilities, orchardists had to start pumping water off their blocks for the third time this Winter.

One large grower in Ardmona had already spent 500 hours pumping, and was again obliged to set his pump in action to get rid of surplus water. The main Western highway leading to Tatura, has been impassable for traffic for weeks and a deviation has been made around through the heart of Ardmona, and on to the highway again at Simpson Corner.

At the present moment the Goulburn River is flooded (37 feet above Summer level at the Shepparton Bridge). Gangs of men are working day and night patrolling the levy banks to keep the water out of Mooroopna (so far Mooroopna is safe).

Serious damage has already been caused to crops, fencing and some buildings on the lower lying ground, and producers whose properties have been flooded, are having a heartbreaking year, especially in the Numurkah and Nathalia districts, where the towns have been flooded and thousands of acres of wheat crops destroyed.

This is the fifth flood in four months, and on each occasion, the water has taken a longer period to recede.

It is evident that orchards in the Shepparton district

Need Underground Drains.

This being the wettest year on record, Shepparton district, Ardmona, and Kyabram primary producers have had two facts brought to their notice:—

(1) The inadequacy of the present drainage system, which has proved disastrous;

(2) The need for an extension of the present drainage system.

Lack of money is preventing the State Rivers-Water Commission from taking action, but they are fully alive to the position.

In the orchard area at Shepparton, the drainage system has worked well, and although heavy losses of Peach trees are expected, these are likely to occur in well drained ground in which the soil has become sodden to the sub-soil—a condition which ordinary drainage cannot alleviate.

Special methods are being tried to cope with this difficulty by underground systems.

The

Spraying Programme

for this month has been a problem. Great difficulty has been experienced in getting the work completed on time; in many cases, three to four horses have been required to pull the pumps through the orchards, to say nothing of wind storms and rain interven'ng.

Seasonal Prospects.

Nevertheless, **there are bright prospects for normal crops, provided we have fine sunny days for the blossoming period,** but at the present moment it is difficult to forecast the yields, as everything depends on future weather. The fruit grower is never sure of his crop until it is in the cases.

The **Apricots** are just bursting into bloom, and have the best show of fruit buds, they have had for years, but all depends on the weather during the next ten days.

Canning Peaches are showing a plentiful supply of buds, but the setting of the crop again depends on weather conditions.

Prospects for better prices in the coming season are excellent. It is expected that all stocks will be cleared by the the end of the year, so that the canneries will start the season with an empty floor.

So much depends on the international situation, which at the moment is extremely grave, nobody can foresee what lies ahead, but let us all carry on in a spirit of courage and fortitude.

:: :: ::

EXPORT PEARS.

After negotiations lasting several months, a Contract was finalised this week, between the Northern Victorian Fruit Growers' Assocation and Messrs. S. J. Perry & Co., **for the whole of the crops of extra fancy and fancy grade Pears for the next five years.**

The terms agreed upon, have been stated to be most satisfactory to growers, and the contract means **that the whole crop of Export Pears grown in the Goulburn Valley, for the next five years, has been sold at a good figure.**

Judging the under 13 years' Pruning Competition at Pakenham (Vic.) Field Day. "Leader," photo.

At a meeting of the **Shepparton Fruit Growers' Advisory Committee,** held at the beginning of the month, it was decided to issue the following information for the guidance of orchardists.

Apricots.

The second spraying of Apricots with Bordeaux-mixture (6-4-40), for shot hole fungus will be due at the pinking stage. Owing to the excessively wet weather, conditions are favourable for the development of fungus diseases, and you are urged to pay particular attention to this spray.

Peaches.

The Tar Distillate Spray should now have been finalised. For the control of San Jose scale, a red oil spray should be applied immediately, and for the control of Curl Leaf, a Bordeaux (6-4-40) spray should be applied at pink bud stage. In this connection, **attention is drawn to the fact, that recent experiments have shown that Peaches which have been sprayed with Bordeaux, have shown greater resistance to Brown Rot development.**

As an alternative, it is possible to use a Combined Spray, containing a Winter white oil, and Bordeaux (6-4-40), but great care must be exercised in the mixing and at the time of application. All trees affected with Black Aphis, should be sprayed with Nicotine and soft soap, as often as is necessary to control the Aphis.

Pears.

Where San Jose Scale is showing, a spraying of Red Oil (1 to 15) should be applied as late as possible, but before bud burst.

Orchard Hygiene.

The Committee is very appreciative of the action of the management of S.P.C. in sterilising all lug boxes, and it is expected that growers will now do their share in helping to control Codling Moth, by paying special attention to cleaning the butts of Pear trees, banding and orchard hygiene generally.

Growers are advised that some brands of blood and bone manure now on the market are unsuitable.

PUBLICATION RECEIVED.

We acknowledge receiving regularly the "P.L.A. Monthly," the magazine of the Port of London Authority. This magazine contains items of historical and practical interest. The compilers are to be congratulated on their very interesting production.

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AUSTRALIAN GROWN PINUS RADIATA

This timber when kiln-dried is unexcelled for all types of Cases
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McCORMICK-DEERING O-14 TRACTOR

THE ideal tractor in size, design, power and mobility for orchard, citrus grove and vineyard work has been evolved in the McCormick-Deering O-14. With plenty of low-cost power for belt and drawbar work O-14 has all the mechanical advantages of performance and economy of the larger models of McCormick-Deering Tractors ... The compact form of this easily manoeuvrable tractor, ensures clearance of fruit and branches ... The large, comfortable seat is adjustable six inches forward and back, with room for the driver to sit or stand at will. Foot-operated steering brakes facilitate quick turns in yielding soil. The flexible 4-cylinder engine has speeds ranging from 1¾ to 7½ miles an hour forward and 1¾ to 2½ in reverse.

Variable speed governor control and radiator shutter are both controllable from driver's seat. Regular equipment includes heat indicator, improved cartridge-type replaceable oil filter and floating-type oil screen for the oil pressure pump.

McCormick-Deering O-14 brings complete mobile power to the modern fruit grower.

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CANNED FRUITS EXPORT.

Totals 1,176,850 Cases.

The total exports of canned fruits from Australia from January 1 to July 31, 1939, are as follows:

Country.	Apricots. Cases.	Peaches. Cases.	Pears. Cases.	Fruit Salad. Cases.	Pine-apples. Cases.	Total. Cases.
U.K.	126,452	618,668	302,255	452	25,943	1,073,770
N.Z.	8,731	24,887	1,712	32	606	35,968
Canada	5,305	24,658	2,513	2,240	16,764	51,480
East	1,877	5,786	3,854	576	35	12,128
Misc.	495	983	1,421	61	544	3,504
Total	142,860	674,982	311,755	3,361	43,892	1,176,850

CANNING FRUITS.

Annual Meeting of Growers.

THE DANGERS OF OVER-PLANTING of fruit for canning were stressed at the annual meeting of the Australian Canning Fruit Growers' Association, held in Shepparton in mid-August, and a warning was given that growers should consult canners before planting new trees.

In a review of seasonal prospects, the opinion was expressed that owing to higher prices for fresh fruit in California and a consequent firming of the London market, prices for canning Peaches should be definitely better than last year. At present it is impossible to forecast crops for the coming season, as the very wet conditions may have an adverse effect on the yield.

Tinplate Industry.

Concern was expressed at the proposed establishment by the Broken Hill Proprietary Company of tinplate mills in Australia. It was stated these would be manufacturing by an obsolete process that had been discarded in Britain and the United States. Any duty imposed by the Commonwealth Government would be reflected by a lower price for fruit. The fact that the manufacture of tinplate in Australia would also jeopardise the preference enjoyed by Australian canned fruit entering Britain, without which the industry could not possibly compete, made the position so serious as to cause grave concern to canners and growers alike.

Office-Bearers.

Officials elected were:—President, Mr. V. C. Williams (Griffith); Vice-President, Mr. J. Lang (Leeton, N.S.W.); Executive, Messrs. Mallinson (Griffith), G. Enticknap (Leeton), A. Longhurst (Yenda). Victorian Executive, Messrs. J. F. Cooper (Lancaster), S. P. Cornish (Ardmona), J. G. B. McDonald, M.L.A. (Shepparton); Secretary, Mr. W. Young (Ardmona).

UNITED KINGDOM — 1939 SEASON'S MINIMUM PRICES FOR CANNED FRUIT.

On the subject of minimum prices and selling terms applicable to sales of canned fruits to the United Kingdom. The following decisions have been reached by the Australian Canned Fruits Board.

Minimum Prices.

It has been decided to increase the minimum prices for No. 2½'s Peaches and Pears, of choice, standard and seconds grades, by threepence per dozen cans. The amended schedule of c.i.f. prices therefore is as follow:—

Choice.—Apricots: 2½'s, 7/6; 1's, 4/10½. Peaches: 2½'s, 6/10½; 1's, 4/4. Pears: 2½'s, 8/1½; 1's, 5/-.

Standard.—Apricots: 2½'s, 7/-; 1's, 4/7½. Peaches: 2½'s, 6/4½; 1's, 4/1, Pears: 2½'s, 7/7½; 1's, 4/9.

Seconds. — Apricots: 2½'s, 6/6. Peaches: 2½'s, 6/-. Pears: 2½'s, 7/1½.

Date of Operation.

The increased prices operate as from August 21, 1939.

The acceptance or otherwise of such business as may be offered at the lower rates remaining operative until August 21 next, is left to the discretion of the canners concerned.

Deliveries.

The final date of shipment for all orders received to date, and subsequent business accepted at current rates, remains unaltered at September 30, 1939.

For sales of canned Peaches and Pears effected at the increased prices indicated herein, the final shipping date may be extended to December 31, 1939.

All United Kingdom agents of exporters are being suitably informed of the foregoing decisions.

1940 WORLD CANNING CONGRESS.

By invitation of the German delegates to the Permanent International Canning Committte at Paris, the next World Canning Congress will take place in Cologne early in September, 1940.

The first international congress on canning ever held took place in Paris in October, 1937, when delegates from 23 countries attended to discuss canned goods in relation to nutrition and to the food regulations of the various countries. Experts on canned foods discussed the vitamins and other nutritive elements in canned foods of all kinds and also the machinery existing in the various countries for the regulation of quality and purity. The necessity for recognising the common interests of the canning industries of the different nations in these subjects was admitted by all and the decision to hold other congresses was unanimous.

For the next congress the subjects for discussion are: "The Sterilization of Canned Foods in Relation to Quality and Digestibility," and "Standardization of Cans and Can Labels."

Material for these discussions is now being collected by the Permanent Committee which invites its members and others who may be interested to send any information to the Secretary, Comité International Permanent de la Conserve, 23 Avenue de Messine, Paris.

W.R.L.

We are in receipt of the annual report of the California Walnut Growers' Association for the 1938 crop season. The crop production for 1938 was 90,388,000 pounds, of which 77,825,000 pounds were merchantable, as compared with 91,047,000 pounds of merchantable nuts in the 1937 season. Lavishly illustrated with graphs, giving statistics and photos., the report covers the field of production, sales and the present situation as regards the production and prospects of walnuts.

The General Manager is Mr. Carlyle Thorpe, California Walnut Growers' Association, Los Angeles, California, U.S.A.

Victorian News & Notes

Field Day at Pakenham

TOP WORKING DEMONSTRATION — PRUNING COMPETITIONS.

DISCUSSIONS ON ORGANISATION, PUBLICITY AND SEASONAL ORCHARD WORK — INSTRUCTIVE PICTURE DISPLAY.

A FIELD DAY was held at the orchard of Mr. J. J. Ahern, Pakenham, Vic., on August 11, under the auspices of the Gippsland Fruit Marketing Association, and the Victorian Fruit Marketing Association. There was an attendance of about 150 orchardists, including those from distant districts.

Mr. D. Black demonstrated methods of reworking fruit trees, and Mr. F. J. Greatorex conducted a pruning competition. Addresses were given by Messrs. W. P. Hutchinson, R. E. Boardman, F. M. Read, and J. L. Provan.

The New Board.

Mr. Hutchinson, who addressed the assemblage in the unavoidable absence of Mr. J. B. Mills, stated it was necessary to create an effective organisation to speak for the industry in this State. In particular Victorian growers would need to act unitedly in relation to export, and in applying for space to fill any allotted quotas.

Regarding the local market, Mr. Hutchinson stressed the value of Apple Week as a publicity medium. This enterprise and others of a similar character were supported by dentists and the medical profession.

terprise was of national significance, particularly in relation to preventive dentistry.

Several men of whom the industry should be proud were assisting in the various avenues of publicity. A stand was being organised at the Royal Show.

MR. READ'S ADDRESS.

The Address by Mr. F. M. Read, Superintendent of Horticulture, is published elsewhere in this issue.

Black Spot and Codling Moth.

Speech by Mr. J. L. Provan.

Mr. J. L. Provan, Senior Horticultural Instructor, reviewed the work being done in the control of codling moth and black spot on the Apple and Pear Demonstration Plots. The following is a summary of his remarks:—

Besides serving to demonstrate the methods of controlling these pests, the plots are most valuable as a basis for the Spray Advice Services which are being developed and extended in every main district, mainly to advise growers when to apply sprays for the control of codling moth. Every plot is provided with a set of ten wine lures which, by trapping moths during the periods favorable for flight, indicate the best time at which to apply sprays. Next season the work will be extended to a total of 50 properties, thus enhancing the value of the Spray Advice Services.

The methods which are being used to disseminate the spray advice are various and include circulars, notices in local papers, wireless broadcasts and notices and lure charts placed in prominent places. So far the circular system had not been used in Gippsland areas, being best suited to more concentrated fruitgrowing areas.

On a number of Special Plots, amongst which is Pakenham Upper, problems which have arisen during the past three seasons will receive special attention. These include **the russeting of Jonathan Apples** by Bordeaux Mixture, the use of Bordeaux substitutes, the possibility of reducing the strength of white oil for the control of codling moth, the influence of strength and number of oil sprays on oil injury.

In inland districts excellent results have been obtained with **white oil for the control of codling moth.** Chemical bandages are desirable wherever codling moth is a problem, but bag bands are preferable in the Goulburn Valley or where birds are troublesome.

Descriptive instructional circulars are available from the Department on these subjects.

Mr. J. J. Ahern talking to Mr. F. M. Read (Acting Superintendent of Horticulture) at Pakenham (Vic.) Field Day.
"Leader," photo.

Judging the Open Pruning Competition. "Leader," photo.

APPLE AND PEAR PUBLICITY.

Mr. R. E. Boardman stated that the publicity work included not only Apple Week, but also the distribution of Apples to schools, and in the latter connection the children were given short addresses on the subject of Apples and health, the children thus learning to repeat—"The Apple is Nature's Tooth-brush."

The support of the dental and medical professions revealed that this enterprise was of national significance, particularly in relation to preventive dentistry.

Orchard Implements on Display.

Designed specially for the man who wants a low, short-turning, smooth-lined tractor that will work close to trees or under low-hanging branches, the **McCormick-Deering 0-14** tractor is comfortable and easy to operate in restricted quarters, and is the right size for orchard or vineyard work. This machine was demonstrated in conjunction with a **McCormick-Deering No. 9-A leverless disc harrow** by a representative of the **International Harvester Company.** The long swinging drawbar pivots well forward of the rear axle, facilitating turning with the harrow.

The discs of both front and rear sections of the harrow automatically assume the desired cutting angle with the first forward movement of the tractor and straighten immediately the tractor is backed. It is a very compact implement with scrapers on all discs and is steel throughout. It is worked entirely from the seat of the tractor, making possible a quick and thorough job.

A Ronaldson Tippett Type FN Spray Plant, with two-wheel transport was also demonstrated. A feature of this was the silent running of its Type N, 3 h.p., totally enclosed, roller-bearing engine. The pneumatic tyres on this implement are a great advantage in wet, muddy country. They not only keep the plant from sinking into the mud but largely prevent slipping sideways on hillsides.

Also on display was a **McCormick-Deering power sprayer,** which is a sturdy compact economical outfit, and is powered by the latest type all-enclosed engine. It is a two-wheel implement and has a chain drive. It is fitted with a highly efficient imported Myers pump. The vat is of the underslung type and has a capacity of 100 gallons. It is built into the truck and gives the outfit a low centre of gravity. This practical, well-designed spraying outfit is particularly suitable for use in hilly country as well as on level land.

A new spray material known as **Soltosan** was demonstrated to the growers. It is a Bayer copper spray and can be used instead of Bordeaux. Soltosan is all ready prepared and only needs to be mixed with water. It may be used for deciduous fruits, citrus fruits, Grape vines, Bananas, Tomatoes and Potatoes and combats such enemies as black spot, brown rot, leaf curl, rot and many others. Soltoson has been used for five years in America and will soon be available to Victorian growers.

At the instance of Mr. W. H. Carne, a hearty vote of thanks was conveye!

AUCTION - WEDNESDAY, 4th OCT., 1939, of One of AUSTRALIA'S FINEST GARDENS
At 11 a.m. at Scott's Hotel, Collins St., Melbourne, by Order of F. W. Kitchen, Esq.
TOOMUC VALLEY ORCHARD, PAKENHAM
155 ACRES UNDER APPLES, 30 ACRES PEARS. WONDERFUL WATER SUPPLY — WATER FOR EVERY TREE. 1,000 ACRES OF LAND IN ALL. PLANTATION 12,000 PINE TREES.
15 HOUSES. BARNS. PACKING SHED, Etc. Etc.
MODERN PLANT. ROTARY AND TRACTOR. 8-HOE ROTARY. EIGHT POWER SPRAYS.
TWO MOTOR TRUCKS. LORRIES, CARTS. MODERN IMPLEMENTS. PUMPS, ENGINES, HORSES.
WALK - IN - WALK - OUT
The present owner and his father before him spent tens of thousands of pounds on this magnificent property — now it is to be sold.
Further Details from Auctioneers: EDWARD HAUGHTON Pty. Ltd.
Agents for Fine Properties
379 COLLINS STREET, MELBOURNE.

to Mr. Ahern for again making his orchard available for the field day.

Educational Picture Show.

IN THE EVENING at the Mechanics' Institute an excellent picture show was given. Several Commonwealth films were shown, including Australia's postal service, the export meat industry and the lyre bird in its native haunts. A Victorian Department of Agriculture film comprehensively demonstrated the methods of reworking fruit trees. A humorous, but none the less instructive film demonstrated the advisability of keeping a farm in order and in decent repair.

Apple Publicity Pictures.

There were also two reels showing the method of Apple distribution to schools. These pictures had been taken by Mr. L. Petty and Mr. K. Weeding. The scenes depicted the arrival of the truck, the orderly distribution of the fruit, the evident joy of the scholars, and the method of addressing the assembled children.

Mr. F. G. Beet, who has displayed great enthusiasm in the work of distributing Apples to schools, addressed the meeting as the pictures were displayed, and thus gave the audience some idea of the magnitude and importance of this work.

Growers' Meeting.

After the pictures a meeting of the growers present was held to discuss the new Board and also local problems. Mr. J. J. Ahern presided.

Mr. Geoffrey W. Brown dealt with the possibilities and limitations of export markets, the attempt to co-ordinate Empire supplies; the increase in British production and their method of storage. There was, however, a continuing market for 4½ to 5 million bushels of Apples from Australia annually. The Apple and Pear Council had performed efficient service, but with regard to the Apple and Pear Board, the previous Minister for Commerce had gone back on his word with regard to finance for State organisations. It was because of the assurance that money for Victorian fruit organisation would be available that growers had accepted the Bill. Now it was known that no money would be forthcoming, unless the Act were amended. He felt that an organisation of the type of the V.F.M.A., which included both growers and shippers, was the most businesslike and effective. It might now be necessary for growers to contribute a small levy per case as was done before refunds were received through the Apple and Pear Council. In the State organisation growers should have voting power in proportion to the district's exports.

Mr. D. Black quoted figures showing the heavy export from the Gippsland districts this season. He moved in favor of a protest being entered because Victorian Apple growers were not represented on the Executive of the Australian Apple and Pear Board. After discussion, in which Mr. W. H. Carne, Mr. R. A. W. Bailey and others took part, the motion was lost.

It was decided to ask Mr. W. Young and Mr. G. W. Brown to speak at a meeting of growers shortly to be held at Pakenham.

Mr. F. G. Beet urged the necessity for consideration to be given to the subject of local marketing, also effective publicity to increase fruit consumption.

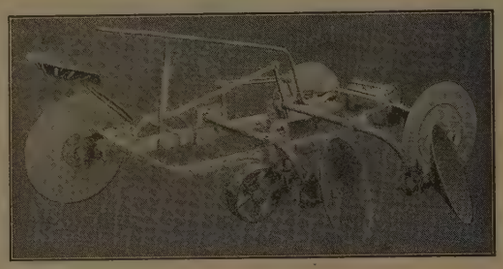
YOUNG FARMERS' CLUBS.

A WIDE VARIETY OF SUBJECTS was included in the syllabus of the School of Agriculture held in Melbourne recently. The School was organised by the Victorian Young Farmers' Clubs Association to enable school teachers and members of rural communities to acquire a knowledge of modern agricultural practice, and so fit themselves better to further the Young Farmer movement in the State.

The attendance at this convention included 100 school teachers from all parts of the State. That such a large number of teachers were ready to put their Winter vacation to this use is ample evidence of the enthusiasm being put into the Young Farmers' Club Movement in Victoria.

Although the Association is still young, there are already 275 affiliated Clubs throughout Victoria.

"HILLMAN" ORCHARD STRIP PLOW



Double Furrow

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.

Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

Further particulars apply . . .

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Other Branches: BIRMINGHAM, GLASGOW, WORTHING, SPALDING and HULL

Sales on Commission, by Private Treaty only.

Over sixty years' of Fruit Distribution.

We do not purchase.

Our Sale Rooms are the largest and most up-to-date in England; consignments are therefore displayed to the best advantage, consequently, our returns are the best.

We have specialised in the Sale of Australian Apples and Pears by expert salesmen for many years past, and we have the largest and best customers in Great Britain amongst our clients.

Bigger and better business is our objective.

We make advances to cover cost of freight, etc.

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VICTORIAN FRUIT CROP REPORTS

WET WEATHER CAUSES PEACH TREE LOSSES — PROBLEM OF FUNGUS DISEASE CONTROL — NICOTINE NOW NEEDED FOR APHIS CONTROL — APPLE PROSPECTS GOOD — PEAR AND STONE FRUITS VARIABLE — CITRUS FUNGUS PROBLEMS — NEW PLANTINGS OF CITRUS.

HORTICULTURAL CONDITIONS in Victoria for the month of August are reviewed in a report issued by the Department of Agriculture.

The extremely wet conditions which have prevailed throughout the Winter in all fruitgrowing areas except Mildura and Swan Hill have continued to upset routine work such as spraying and cultivation, but in the Horsham district more rains are required in the catchment areas to ensure adequate supplies of irrigation water next Summer.

In the Goulburn Valley it seems inevitable that many Peach trees will be lost as a result of the water-logged soil conditions and ploughing so far has been impossible. Efforts to relieve the situation by pumping away excess water have proved of little value because of the repeated heavy rains.

In many districts considerable attention is being given to the installation of tile drains. Cover crops have not always succeeded in coping with the excess water unless they had made good growth in the Autumn before the soil became waterlogged. Since then the nitrate nitrogen content of the soil has fallen to a very low level, a factor which promises to limit both crop production and growth in the Spring unless conditions improve.

If the present conditions continue, the control of fungus diseases is likely to present a problem and, as it is, the Bordeaux mixture applications for the control of Shot Hole of Apricots, Leaf Curl and Brown Rot of Peaches have been delayed in many districts. Those growers who were unable to apply tar distillate for the control of Peach Aphid must now rely on nicotine, which should be applied as soon as there is any sign of Aphis. Large numbers of growers in the Goulburn Valley have been unable to apply the Winter spray to Pears for the control of Red Spider and San Jose Scale, as the Pears are located in the wettest situations.

Apple Prospects Good.

As reported a month ago, the prospects for good crops of deciduous fruits are excellent, Apples being consistently good everywhere.

The Pear crop from Harcourt will be much below normal.

Prospects for stone fruits are more variable, being good in the Goulburn Valley and Doncaster Areas but light to medium elsewhere. It is likely that the "setting" of Almonds will be adversely effected by the wet weather and the inactivity of bees, but generally the indications are for good crops.

Citrus growers are experiencing considerable trouble with the fungous diseases Septoria, Anthracnose and Brown Rot largely as a result of the failure to take necessary precautions in the Autumn. Many growers have applied a spray of 3.3.50 Bordeaux mixture plus 1 gallon of white oil to 100 gals. of spray mixture to protect Valencias from infection. Washington Navels have been harvested earlier than usual to prevent further losses. Brown Spot has been very troublesome on Passionfruit vines in the North East, and this, with severe frosts and Botrytis infection, has reduced the earlier prospects for a heavy crop.

Considerable plantings of young citrus are taking place this year in the Swan Hill district, and about 100 acres of Valencias, Navels and Lemons will be planted, but it is to be noticed that some trees are being planted in unsuitable soils.

Messrs. Wadeson (left) and Greatorex (Dept. of Agriculture) at the Pakenham Field Day.

"Leader," photo.

Orchardists' and Fruit Cool Stores Association

Quarterly Meeting Discusses Important Matters

ASSISTANCE TO PRIMARY INDUSTRIES DEEMED A FEDERAL MATTER — FRUIT PACKING INDUSTRIES NEEDED — SALE OF FRUIT AT SPORTS GROUNDS — NEED FOR ONE EFFECTIVE STATE ORGANISATION.

THE QUARTERLY MEETING of the Orchardists' and Fruit Cool Stores' Association of Victoria was held at Melbourne on August 24, 1939. The President, Mr. Frank Petty, occupied the chair.

Assistance to Primary Industries.

A discussion took place on the conflict between the Federal and State Governments on the question of assistance to wheat growers. Although the members of the Association were not directly concerned in the matter, as primary producers, they felt that an expression of opinion would be of value. It was stressed that the Federal Government, by its control of the tariff policy of the Commonwealth and of the Arbitration Court automatically gave protection and assistance to secondary industries and received considerable revenue from customs receipts. **It was, therefore, in the opinion of the meeting, the duty of the Federal Government and not the State Government to give all possible assistance to primary industries,** and the wheat growers in particular, who had to compete on world markets and accept price fluctuations while paying high prices to protected industries for their supplies and equipment.

Fruit Packing Instructors.

Regret was expressed that the State Government had reduced the number of fruit packing instructors in the State School classes, and a motion was passed urging that the Department reinstate the number of classes. Speakers stated that the industry was dependent on good packers and if the children learnt early they became better packers than if taught later in life, and could command higher wages. The shortage of packers was a definite handicap to the growers and caused a considerable reduction in price, with a consequent loss, especially on the export market.

The meeting was advised of the necessity of growers forecasting the requirements of shipping space for export. Under the provisions of the Apple and Pear Act it was now necessary for the growers personally to make application for space. Formerly this had been left to the Fruit Exporters Handling Committee who underwrote the space requirements. The necessary forms would later be made available.

Restricted Fruit Sales.

A report was made by the Executive on a deputation that waited on the Assistant Minister for Labor on the question of re-opening the fruit shops on Saturday afternoons during the Winter months. A very influential deputation waited on the Minister and received a sympathetic hearing. In addition to asking that the fruit shops be permitted to open, a request was also made that legislation be passed **to enable fruit to be sold on Saturday afternoons at sports meetings and public gatherings.** The Minister agreed that the latter request was reasonable, and as a result it is understood that legislation will be passed in the forthcoming session to enable this to be done.

The Executive also reported that in response to a request from the Apple and Pear Publicity Committee a sum of £20 had been donated from **the Publicity Fund to assist in financing** a publicity campaign in Sydney. It also reported that it had agreed to share the cost of a display of fruit in the Horticultural Hall at the forthcoming Royal Show. Approval of the Executive's action was expressed by the meeting.

Organising the Industry.

A rather lengthy discussion took place on a motion brought forward by the Peninsula Growers' Association on the desirability of **strengthening the organisation on a State basis.** In putting the motion forward it was stressed that in Victoria there were a number of small growers' organisations all speaking individually on their own behalf. It was felt that there was considerable overlapping by these associations, and **that a very real need existed for a strong central association that could as necessity arose speak with one authoritative voice.**

The establishing of such an association was supported by a number of speakers and a resolution was passed that steps be taken to arrange a conference with kindred organisations with a view to establishing such an association.

AUCTION SALE.

Toomuc Valley Orchards, Pakenham, Victoria.

Attention is directed to the announcement elsewhere in this publication, of an Auction Sale of the Toomuc Valley Orchards, Pakenham, Victoria, which will take place at Scott's Hotel, Melbourne, on October 11, 1939 at 11 a.m.

This property, which is being sold by order of F. W. Kitchen, Esq., is well-known throughout the Commonwealth; the present owner and his father before him, spent thousands of pounds on this magnificent property.

The area under Apples comprises 155 acres; Pears 30 acres; ample water supply available for every tree. The area of land, including that under orchard, is 1,000 acres. A plantation of 12,000 pine trees is also contained on the property. The orchard is complete with all the necessary orchard equipment, tractors, power sprays, motor trucks, lorries, pumps, engines, horses, etc. There are fifteen houses on the property, apart from the barns and packing shed. The sale is to be conducted on a walk-in, walk-out basis. Further details may be obtained from the auctioneers, Messrs. Edward Haughton Pty. Ltd., 379 Collins-street, Melbourne.

LIGHTNING

See the Real Fruitgrowers' Show at MELBOURNE ROYAL SHOW.

The Lightning Exhibit on Stand No. 65 in the Main Street, at the Showgrounds

Graders and Packing House Equipment - - Specialised Orchard Implements

Tree and Stump Grubbers

Labor Saving Devices for Clearing and Improving Your Land

A REVIEW OF THE OPERATIONS OF TREWHELLA BROS. PTY. LTD., TRENTHAM, VICTORIA.

THE STORY of the founding of the organisation of Trewhella Bros. Pty. Ltd., of Trentham, Victoria, is truly a romance of industry. The first Trewhellas to arrive in Australia were among the early farming pioneers and they experienced the greatest difficulty in getting their land cleared. Later one member of the family entered the engineering profession and afterwards, with a brother, started sawmilling. It was the difficulty of handling logs in the mill that suggested to the engineer the first Trewhella Jack, and recollections of the difficulty of clearing the old home farm, suggested it for grubbing. Thus began the business over 45 years ago, which, to-day, is the largest manufacturer of Grubbers and Jacks for the removal of trees, stumps, stones or other obstructions, and also for other industrial purposes, particularly amongst sawmillers and contractors.

These implements have stood the test of time in all parts of the Commonwealth, New Zealand and the East Indies. In recent years there has been an increasing demand for these implements in Canada, Great Britain, America, Europe and Africa. This in itself may be regarded as a high tribute to the designs, material and workmanship embodied in these Australian built machines.

A Review of the Machines.

The Monkey Horse Grubber is by far the most powerful grubber on the market, exerting a direct strain from the drum or doubling it through the Patent Snatch Block. The pull of the horse goes straight from the machine in any direction. By pulling straight, the horse can pull more than in a circle and the highly dangerous crossing over of the pulling ropes is avoided. The pull of the horse, on the slowest and most powerful gear, is multiplied by 133; the next by 65; the next, 33, and the quickest by 16. This gives a very wide range of power adapted for different classes of pulling.

A user of the Monkey Horse Grubber recently wrote: "I have been working one of these machines for the last two years, during which time we have cleared 2,000 acres for the plough. The country was fairly heavily timbered, the nature of the timber being green box, and red gum and dead timber. The cost of clearing was about 15/- per acre, on many acres of this land the cost to clear it without the machine would have been simply prohibitive."

We now pass on to the

Trewhella Stump Puller,

which is the ideal Trewhella Stump machine to clear land of trees, stumps or stones. It is not generally realised that the presence of stumps or trees in cultivation paddocks keep much valuable land out of cultivation; in addition to costing money in broken and damaged implements. Added to this they promote the growth of troublesome weeds and serve as a harbor for many pests. A realisation of the losses incurring through the presence of stumps and trees as set out above, should convince every farmer that a tree stump puller on the property is a decidedly wise investment.

A Monkey Horse Grubber is the quickest and most powerful machine for continuous grubbing work—the horse doing all the laborous work. A hand power Trewhella Monkey Grubber is a useful implement which is always ready for work. You can fill in your spare hours by improving your land.

It is generally recognised that stumps are easier to pull when the ground is wet. In addition to grubbing trees, stumps, stones, rolling or hauling logs, etc., in land clearing, the Trewhella Monkey Grubber is extensively used as a winch.

Much time, thought and experiments have been devoted to perfecting the Monkey Grubber Trewhella Model "U," and its equipment of Snatch Block, Grab and Rope attachment make all the details as simple and convenient as is consistent with strength to stand the severe strains which such a machine is subject to. It has a pair of wheels for transport in plain country, while in rough or scrubby country it can easily be carried by two men. This model is operated by hand power and one or two men at the handle will develop up to 24 tons pull—sufficient to grub almost any tree or stump in the bush. The power is obtained by the application of our patented Paul and Ratchet Gear to a drum, to which one end of a steel cable is affixed. The following opinion of a N.S.W. user speaks for itself:—

"I can recommend to farmers and orchardists where clearing is heavy to purchase the Monkey Grubber. In the past two months my brother, aged 16, has been pulling timber for neighbours by day-labouring at 12/6 per day. He has pulled 66 trees in one day, ranging from 8 inches to 2 feet 6 inches. Those knowing timber such as Peppermint Wood, Red Gum, Ash and Stringy Bark, will appreciate what this really means. The machine has paid for itself many times over in six months."

The Trewhella Monkey Jack, which is available in different models, is an excellent machine for lighter land clearing jobs and for removing sunken roots, stones, etc. The distinguishing feature of Trewhella's Monkey Jack is the casing (carrying the lifting hooks), which is short and moves up the pillar instead of the casing remaining stationary, and the rack moving up as in other Jacks. This gives the advantage of a much higher or longer lift (26 inches) without unduly increasing the weight of the Jack. The lifting hooks are at opposite sides of the casing, and so arranged that the top one will go low enough to take up the position occupied by the one in the previous lift.

Orchardists would be interested in the following experience of a fruitgrower: "I am highly pleased with the 'Monkey' Jack. Owing to the almost incessant rain I only worked it about 9 days, and in that time took out about 260 Apple trees, some of which were nearly 30 years old and over one foot in diameter in the trunk, with spreading tops—nearly buried owing to a flood going over them—and leaving 15 inches of sand nearly 20 inches below the surface. I shoved them over with the long spear, singlehanded, and then took them out with the bottom claw."

Space does not permit of a further detailed description of the complete range of Trewhella's Stump Pullers, Monkey Grubbers and Monkey Jacks, but this brief summary should serve to convince every reader that in the Trewhella range of implements, will be found a machine sufficient to carry out the work of tree and stump pulling, grubbing and hauling, no matter where or under what conditions the work is carried out.

Visitors to the Melbourne Royal Show have the opportunity of inspecting the complete range of machines at Messrs. Trewhella Bros. Stand, No. 110, Cr. McCracken Avenue and Smith Street, Showgrounds.

A Cordial invitation is extended to growers to call and discuss their tree and stump pulling problems.

"Getting the Pull" on a big stump with the Trewhella "Monkey" Horse Grubber.

"Out." The stump shown above successfully grubbed with the Trewhella Horse Grubber.

In plain country, the "Monkey Grubber" runs lightly on its wheels.

In rough country, it can be easily carried by two men.

PINEAPPLE JUICE.

Wonderful Health Properties.

FOLLOWING upon recent research into the use of fresh fruit and vegetable juices, it has been found that fresh Pineapple juice is most efficacious in throat troubles and diphtheria, as the juice dissolves the fleshy tissue, such as is found in these ailments. A cure of diphtheria in a most marked, and, in fact, abandoned case is reported in an American medical journal as follows:—

"For three or four years I have been hearing of the use of Pineapple juice for the cure of diphtheria, but thought little of it. Recently, however, it has taken better shape in the report of a case when the child was given up by the doctor, and a friend, coming in, remarked that he had known children relieved by Pineapple juice. The physician in attendance said, 'Get it and try it, it can do no harm.' A ripe Pineapple was obtained and the juice expressed and given in teaspoonful doses slowly. It seemed to clear the throat, swallowing was much easier, and in a few hours the child was sleeping. Complete recovery ensued. A number of cases in the same neighbourhood were subsequently treated with the same successful outcome." The juice has also been found to be very useful for bronchitis, in softening the mucus. The Pineapple is also a mild laxative.

Citrus News and Notes

The Spanish Orange Industry

The Cradle of Orange Export — Historical Notes—Varieties, Packing, Transport.

An interesting and valuable contribution to a present-day study of developments in fruit marketing.
(By Alfredo Neugarten.)

The Author of this article was manager of a large Spanish fruit exporting firm, prior to going to Palestine where he was a fruit inspector in the Palestine Dept. of Agriculture. He speaks several European languages.

BEFORE THE CIVIL WAR, Spain was the biggest orange-exporting Country in the world and when once they get back to normal conditions again, will probably remain so for many years to come.

At this time she had about 24 million inhabitants and had part of the Levant Coast only planted with citrus fruit, i.e., Oranges, Mandarins, a few Lemons (more in the South East Coast) and practically no Grapefruit. My intention is to show how their Orange crop was handled in those years prior to 1936 and, as correct figures and statements about the way the Spanish Oranges were cultivated, etc., have been described in this paper from time to time, I will not burden you by a further resumé in this direction.

Shipping Facilities.

Valencia, a town of the size of Adelaide, was the main port from where the fruit was shipped. Forty-five miles to the South of Valencia, there are two Orange ports from where a few million boxes of Oranges were shipped annually mostly to English, Dutch, Belgian and German ports.

North of Valencia, about 50 miles away, there were two other ports, **Burriana** and **Castellon**, shipping mostly late season fruit. Over a distance of about 100 miles, there were altogether five deep water harbors, but only in one of them, **Gandia**, could freighters with a limited draught berth alongside the quay. In all the other ports, the fruit had to be loaded into lighters and brought alongside the boats.

At first thought, this double handling would seem to lead to a rough handling of the fruit and a delay in loading operations, but in practice it was not so. Spanish boxes were strapped with a rope like a parcel, this allowing the box to be picked up by using a hook as handle. In the port of Valencia were more than a hundred loading points, where a type of a handwinch operated in such a form, getting the box on the middle rope and swinging it in a flat position down to the craft or lighter, allowing the stevedore to handle it easily without having to lift the weight.

The fruit steamers were arranged with the bow to the port entrance and, when it was necessary, could operate on all their winches and hatches, loading, sometimes in a day's work a full cargo of about 25,000 to 30,000 boxes. Even at the steamer's side, the cases were loaded without platforms. To expedite handling, eight or ten hooks were knotted together, to form a bunch to be heaved up from the lighters.

The port of Valencia alone had to deal with about 7 million cases of Oranges in a normal season and there were times when, in a few weeks before Xmas, there were as many as 6 to 7 hundred thousand boxes loaded weekly to reach the Xmas market. Boats generally started loading operations in one of the Northern or Southern ports and finished in Valencia, therefore, it was not an extraordinary sight to see more than **twenty steamers** loading at the latter port at the same time; the smaller ports could only accommodate a few vessels at a time.

Only up to 25 per cent. of the Spanish Orange crop was marketed within the country, the balance being exported. The Spanish Orange export was a flourishing industry so long as the transport conditions did not permit the importation of Summer Oranges, i.e., Oranges maturing during Summer time, to the Northern hemisphere. Until this time, Oranges from the Mediterranean shores were the main fruit during Winter, and were more favoured because Apples and Pears produced in Northern countries did not keep. With the improvement in storage and transport, and larger quantities of other classes of fruit coming to Europe at all times of the year, the interest for Oranges declined not in the quantity consumed — this improved from year to year—but Oranges ceased to be a novelty with the beginning of the Winter.

Transport.

THE IMPROVEMENT in TRANSPORT conditions played quite a part in the development of the Orange export and Orange planting. Oranges could be offered in better condition and more appetising, after having passed through machinery for cleaning and polishing and the buyers in European markets were assured of a box with contents which could be relied on. **The fruit was correctly graded, packed and marked, and there is no doubt this did a great deal towards winning the confidence of the distributors and buyers.**

The export trade was generally in the hands of exporters, who, by paying a licence fee of about £50 a year to the Government were entitled to operate in any part of the state.

Before the Civil War, the Spanish Orange export amounted to approximately 22 million boxes of Oranges of two bushels net content. About half of this was exported by rail to France and Central Europe, the other half going to England, Scandinavian and Continental countries.

The origin of the export was obviously on the waterway, i.e., steamer transport and it was the little coast town of **Burriana** which gave the biggest contingent of exporters and skilled workers. I never could fully realise why this town in particular produced more Orange exporters than the whole of the rest of the Spanish Levant together.

Spanish history teaches that the Phoenicians, after the building of Carthage in North Africa, had trade stations along the Spanish Levant Coast, until the Romans conquered Spain, colonised the country, and erected forts. The Moors played, in these parts, an important role and it may be, that one or another of these trader tribes remained at this spot, at the little town of Burriana was more apt and inclined to international trade than any other spot on the coast.

At the beginning of the Spanish Orange trade, Burriana men went to the Orange districts of **Alcira** and **Carcagente**, shipping their fruit through Valencia, a distance of about 20 miles. The cases were transported by huge two wheel carts, with wheels more than 6 feet in diameter. These carts were drawn by 4 or 5 strong horses or mules having as a pilot a diminutive donkey, who was so clever that the driver, by manner of speech only, induced him to make the necessary wide curved movement to the left or to the right to bring the team of horses round. After the Great War, and with the improvement of roads and motor trucks, these carts disappeared almost completely from the Orange transport.

The men from Burriana, called "Burrianeros" or "Orange people," bought their requirements of fruit from the growers, the basis of the deal being for the whole of the fruit of the grove, or according to the weight or the number. They rented a packing shed in one of the many villages, and picked up their working people from Burriana, the women doing the sorting and packing, and the men, the picking, lidding and transport operations.

In the latter years, the working class in the Orange villages claimed their share of the work, and, taking into account the tremendous increase in Orange export, got about half of the obtainable employment. It was amusing to see how the village of Burriana became empty about the beginning of November and filled again towards the end of February when the export of the better keeping and later maturing Oranges was commenced in its own district.

With the **improvement of railway transport**, the export of Oranges in bulk was greatly increased. The Spanish railway companies had great obstacles to face in respect of this traffic, as their railway system had a wider gauge than the French or European railways and unfortunately only one single track to the frontier. The main line on the coast offered no special technical difficulties, but this could not cope with the amount of seasonable transport requirements. A secondary track via the (ill-fated) Teruel, had to reckon with tremendous hilly grades and slopes, which made extremely heavy going for heavily loaded Orange trains—a difficulty which was overcome after receiving a few years later, specially designed engines.

To give you an idea, over a distance of 40 miles, i.e. from Jativa (S.W. of Valencia) to Sagunto (N. of Valencia), about 400 to 500 empty trucks a day had to be provided by the companies, forwarded and replaced again, beside the ordinary and not unimportant passenger and goods service. This huge contingent of trucks was mainly divided between the two frontier towns, **Hendaye** on the West of the Pyrenees and **Cerbére** on the East, the Western frontier being reserved mainly for Paris (getting sometimes more than 120 trucks a day), the rest of France, Belgium and N. W. Germany. The Eastern frontier provided for S. E. France, Switzerland, Germany and the remainder of Central European states.

Government Inspection.

The Government inspection, against the wish and interest of the exporters, took place on the frontier. The inspection was not a very severe one, ruling approximately under the same

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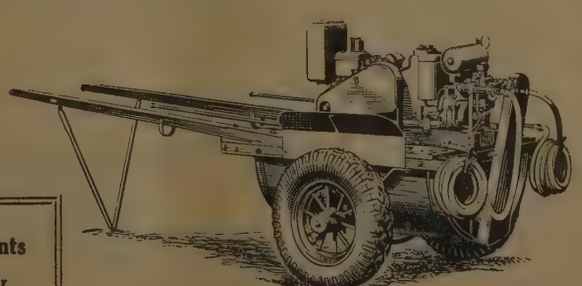

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ROYAL SHOW

RONALDSON-TIPPETT FRUIT SPRAY PLANTS

The "Everlasting" Super Power Sprayer

Service is remembered long after price is forgotten

This machine, perfected after years of patient engineering, is manufactured in **solid gunmetal**, and provides absolutely the super Sprayer. With a minimum of working parts, it is capable of long years of heavy duty.

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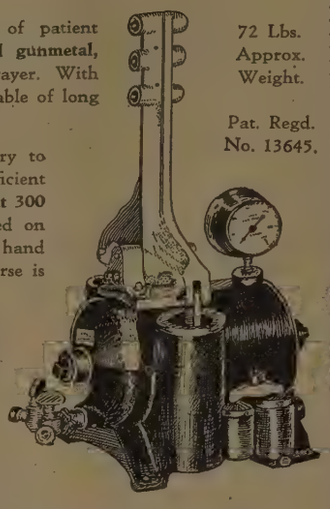

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Supplied as shown with Pressure Gauge, By-pass Valve, and Double Discharge Cock.

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The materials used in the manufacture of the blocks are Sand or Gravel and Cement in the proportions of 4 or 5 to 1. Blocks made of this consistency possess remarkable tenacity and strength, and form the ideal building material.

Buildings made of them are proof against FIRE OR WATER, WHITE ANTS and BORERS.

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See the "HOMEBUILDER" in operation at our STAND 32, LENNON AVENUE, at the —— ROYAL SHOW. ——

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system as used by any other Orange exporting country. Rejected lots had to be overhauled on the frontier, but one cannot imagine, unless they were to witness it, what a mess there was, if frost had damaged part of the crop and the inspection suddenly developed a severe complex. The whole traffic sometimes was dislocated for weeks, when numbers of trucks could not be disposed of at the frontier, because the inspectors had rejected the fruit and owners wanted to sort and repack. No nearby town was large enough to consume the rejected fruit, not suitable for export, with the result, all losses were borne by the exporter who had to pay not only for the fruit, the handling and transport to the frontier, but the cost, in many instances, of his fruit being thrown into the sea, which was the easiest means of disposal.

Here I have to mention **that most of the Orange export by rail was in bulk, loosely stacked on rice, straw, mostly mechanically washed and polished, sized and wrapped; many trucks contained Oranges stacked according to sizes.** For the exporter and the importer of any other country, the weight recorded when the fruit was transferred from the Spanish to the French trucks, was the basic one on which the arranged price had to be applied. This was the official weight of the French customs and binding for all.

In the latter years, crates, containing about one bushel of Oranges, were introduced to get lower freight rates through loading the railway trucks to full capacity. These crates contained only one size of wrapped or unwrapped Oranges placed loosely in the case and had the average number of Oranges, i.e. contents, marked on the outside. This package proved to be the cheapest one.

Sorting and Packing.

As Oranges were only rolled into the cases straight from the grading unit, which incidentally sized rather erratically, one shed could handle with one small washing, polishing and sizing plant (an investment of £200), about a thousand bushels of Oranges a day. The sorting, according to qualities, had to be performed by hand naturally. Generally, each exporter had his first, second and third class brand. There were no Government control of brands, but the long experience of export had taught the exporters not to mix their qualities with a view to cheating their customers. **At first, brands were mostly stencilled with the mark on the Orange skin, this being done at the start with hand stamps, but packers very soon changed to the more modern American inspired stamping machines.**

The Spanish Orange case is completely different from any other Orange case in the world. In the earlier times of export, a number of cases were in favour, these held 420 extra large, 420 medium, 714 large and 1,064 Oranges per case respectively. The handling of these cases was not an easy job; their weight was tremendous. For instance a medium case of 420 weighed 3 bushels net, a 714 about 4 bushels and a 1,064 about 5 bushels net. The extra large sizes of each grading number averaged at least one bushel more for each size.

In later years, i.e. before the Civil War, these cases were mostly shipped to Norwegian ports, but in the other consuming countries the clients required more reduced packages in order to get a greater range of sizes in the same quantity of Oranges. The half case was the usual one, containing 200, 240, 300, 390 and 504 Oranges, having an average net content of about 2 bushels a case.

N.S.W. CITRUS CROPS

Oranges — Lemons — Grapefruit

THE LATEST INFORMATION regarding citrus crops in N.S.W. is contained in the following report from the N.S.W. Dept. of Agriculture:—

Coastal Areas:

The bulk of the Navel crop has been harvested at **Gosford** and returns to growers generally were satisfactory. Marketing is almost completed in the **Hawkesbury** district, and apart from some fruit on high situations the crop has been cleared from around **Windsor.** About 75 per cent. of the Oranges has been picked at **Kurrajong** and there is no fruit remaining in groves in the **Camden-Parramatta** area.

Frosts reduced the intermediate setting of **Valencias** in low situations at **Gosford,** otherwise crop prospects are unchanged. It is stated that much of the fruit in **Hawkesbury** groves will be somewhat small, but quality should be moderate. A few bushels are being marketed.

Heavy frosts caused a slight fall of these Oranges at **Windsor.** Little development was apparent during the month in the **Camden-Parramatta** sector, owing to the dry and frosty weather.

The greater proportion of **Common Oranges** has been marketed from **Gosford** groves at satisfactory prices. Odd consignments have been going forward from the **Kurrajong** district to factories for juice extraction, and it is stated that good prices were realised for the fruit. There are only limited quantities of these Oranges remaining to be picked in the Windsor and Camden-Parramatta districts.

The heavy setting of **Summer crop Lemons** was reduced slightly by frost at Gosford, and some damage was also noticeable in Hawkesbury orchards. A medium to good crop of "mains" is yet to go forward from Kurrajong and a fair Summer setting is in sight. Much damage by frost to mature main and intermediate fruit in low-lying areas is reported from Windsor. About 75 per cent. of the main crop has been marketed from the Camden-Parramatta district. The Summer crop setting did not show much development during the month.

The few **Grapefruit** remaining in the Windsor district are commencing to fall. Although not grown extensively, some very nice quality Wheeneys are to be seen in parts of the Kurrajong area.

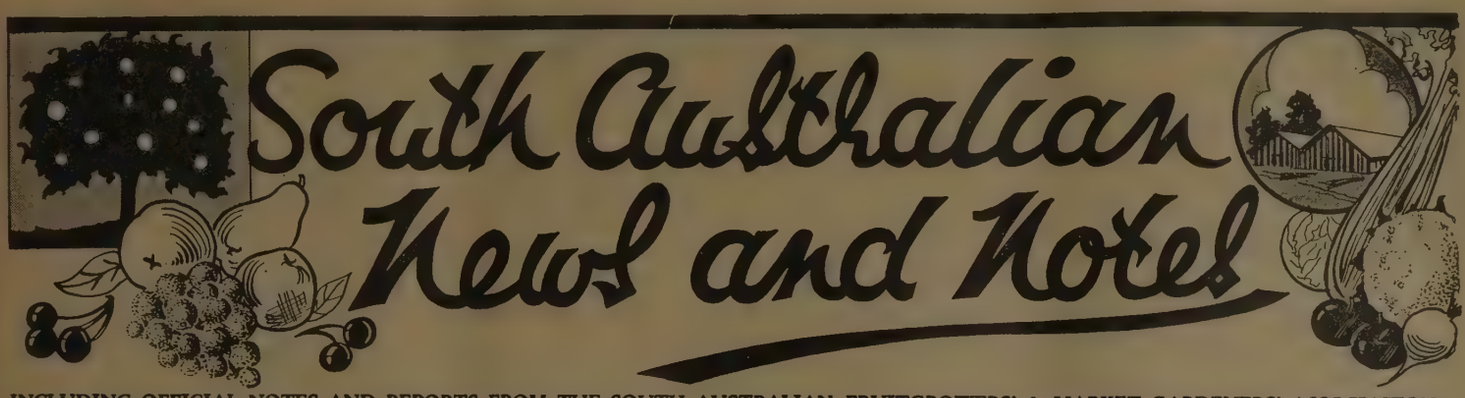
Murrumbidgee Irrigation Area.

Consignments of **Navels** to local markets and for export to New Zealand were in full swing.

Fairly good crops of **Valencias** are in sight at Yenda and at Leeton these Oranges are fully colored and generally of fair quality.

Harvesting of **main crop Lemons** is well advanced at Leeton; prospects for the Summer setting are bright.

Considerable shedding of **Grapefruit** is reported, particularly of the Marsh variety. The local cannery is processing fruit four inches in diameter and larger.



INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

S.A. Fruitgrowers' and Market Gardeners' Association Incorp.

Meeting of Executive Committee

THE Executive Committee of the above Association met in the Committee Room on Friday, August 25, 1939, at 10.30 a.m.

The President (Mr. W. J. Bishop) occupied the chair.

Members present were: Messrs. R. Hunter, H. W. Parsons, G. H. Schultz, E. J. Pitt, A. O. Peterson, L. J. Wicks, F. Hughes, A. E. Brealey, A. Hersey, R. A. Cramond, N. E. Edwards, H. N. Wicks, C. H. Ragless, J. Turner, N. T. Hobbs, J. B. Randell, G. T. Pitt, C. W. McRostie (Melbourne representative).

Apologies: Messrs. H. B. Robson, C. Stanford and M. J. Vickers.

The Chairman extended a welcome to Mr. N. E. Edwards, newly appointed delegate from the Marion Branch.

Correspondence.

1. The Premier of South Australia, advising his inability to open the annual conference owing to his absence from Adelaide on September 29.

2. The Minister of Agriculture, accepting invitation to declare open the annual meeting on September 29. (The Minister subsequently agreed to open the conference in place of the Premier.)

3. Dr. A. R. Callaghan, expressing regret that through a previous engagement would not be able to address the annual conference.

4. Mr. G. B. Ragless, forwarding a suggestion for discussion at the conference, viz., "The Conducting of an Autumn Show by the Association."

5. Mr. R. J. Cobbledick, Secretary, Proposed Cold Stores at Ashton, expressing appreciation for the use of Committee Room for meetings.

6. C. W. McRostie, concerning the amending of Victorian Shops and Factories Act to permit the sale of fruit at sports gatherings.

7. D. G. Wills (Sydney) Pty. Ltd., advising the presentation of a copy of the report of the Royal Commission of Enquiry into the Fruit Industry of N.S.W.

8. The Department of Agriculture, submitting the quantities of fruits held in cold storage as at 31/7/39.

Resolved that the correspondence be received and dealt with.

Resolved—

"That appreciation of D. G. Wills (Sydney) Pty. Ltd., in forwarding copy of Report, be recorded."

"That Mr. C. B. Ragless' suggestion be placed on the conference agenda."

Annual Meeting: Mr. C. Ragless moved "That Mr. G. Quinn be invited to open the annual meeting." Seconded Mr. J. Turner. Carried.

Speaker at Conference: Mr. G. Schultz moved ""That Mr. W. J. Spafford, Director of Agriculture, be invited to address the conference." Seconded Mr. H. N. Wicks. Carried.

Conference Dinner: Resolved the dinner tickets be 4/- each.

Sectional Reports.

Potato Section: Mr. C. J. Pitt reported that a meeting of Potato growers held at Woodside recently expressed itself in favor of an organisation of the Potato industry. A Committee had been appointed at the meeting to organise growers in the Onkaparinga Valley.

Tomato Section: The Secretary for the Chairman reported that the export season had commenced, and a well attended general meeting had been held when matters appertaining to the industry had been dealt with.

Celery Section: Mr. N. T. Hobbs reported that Celery export at the present was progressing satisfactorily.

Apple Section: A letter from the U.K. representative was read concerning Apple export last season. A report giving the net price to the grower for consignment was given, and proved illuminating, growers netting from 2/- to 3/- above forward sales prices.

Citrus Section: As citrus matters in the past had been handled by Torrens Valley Citrus Growers' Association, Mr. N. T. Hobbs moved:—"That as Torrens Valley Citrus Association had now gone into voluntary liquidation, a meeting of citrus growers be called to determine future policy of the Citrus Section." Seconded Mr. G. T. Pitt. Carried.

Cherry Section: Mr. W. J. Bishop reported that the Cherry Section Committee had met prior to this meeting and had decided to send him to Melbourne to interview factories on matters relative to the coming season.

Society: A report from the Manager of Fruitgrowers' and Market Society was read.

Mr. C. W. McRostie: Mr. C. W. McRostie, the Association Representative in Melbourne, briefly reported on Association activities in Melbourne.

Deputation: Resolved that the President and Mr. R. A. Cramond join the two Marion Branch Representatives in a deputation to wait upon the Minister of Agriculture concerning the regulations governing the sale of gypsum and agricultural lime.

Association Delegates on Society Board: Resolved that the two retiring representatives, Messrs. W. J. Bishop and L. J. Wicks, be reappointed.

Boxthorn Eradication: Mr. L. J. Wicks reported that at present a Bill was before the S.A. Parliament to bring about the eradication of Boxthorn hedges. These hedges played a big part in a section of the industry as windbreaks, and its removal would be detrimental. He moved:—"That the Secretary procure a copy of the Act, and if the matter warranted it, be empowered to call a meeting of interested members to consider the matter. Seconded Mr. J. Turner. Carried.

Finance: Financial statement presented and adopted.

Accounts: Accounts passed for payment.

Nominations of Executive Committeemen: The Chairman ruled that if retiring members signed a form signifying their willingness for re-election, same would suffice.

The meeting resolved that the above be constitutionally correct, and retiring members be advised of same.

TOMATO GROWERS MEET.

A general meeting of Tomato growers was held in Adelaide on Thursday, August 24, when a large representative crowd attended.

Mr. C. W. McRostie, Melbourne market representative, was present, and addressed growers on matters relating to the marketing in Melbourne of Tomatoes.

This season, he stated, is the 11th year since the Association commenced direct consignment to the Melbourne market, and the prospects at present are the brightest for some time.

The Chairman (Mr. C. Stanford) reported that the Committee would again this season conduct experiments with the view of overcoming the "boiled train" bogey.

The Railway timetable had been amended to permit of a fast freight to Melbourne each day (Sunday excepted), and would prove of great benefit to growers in this State.

From reports given, early season Tomatoes are in greater supply than last season, and export quantities to date are in excess of those to the same period last season.

It was resolved that a printed circular be forwarded to each grower, setting out the requirements of the Section for the current season.

As a means of promoting sales of Tomatoes the Section decided to advertise this season, and the form to be adopted was entrusted to an Advertising Committee.

FRUIT IN COLD STORE.

The Department of Agriculture advise that the figures of fruit held in cold store in South Australia at July 31, 1939, were as follows:—

Apples	140,118
Pears	1,114
Total	141,232

The above figures show a decrease on those held in store at the same date last year.

During August the Adelaide hills and plains experienced wet and boisterous weather.

The continuous wet and cold conditions has retarded growth, and the many hailstorms have had an adverse effect on small plants.

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ANNUAL MEETING AND CONFERENCE.

The annual meeting of the S.A. Fruitgrowers' and Market Gardeners' Association will be held in the Committee Room, 288a Rundle-street, Adelaide, on Friday, September 29 next.

Mr. G. Quinn has been invited to open the meeting.

Business.

President's report.

Adoption of financial statement.

Election of President, Vice-President, and 10 Executive Committeemen.

The annual meeting will be preceded by the usual Executive meeting at 10.30 a.m. sharp.

The annual conference will be held at 2 p.m. the same day, when matters relating to the industry as a whole will be discussed.

Mr. W. J. Spafford, Director of Agriculture, has been invited to address the conference.

The Minister of Agriculture (Hon. A. P. Blesing) will declare the conference open.

At 7 p.m. a dinner will be held at the "Arcadia Café," King William-street, Adelaide, and will be followed by an entertaining talking picture programme arranged by Mr. H. N. Wicks.

All members, their wives and friends are cordially invited to the evening function, tickets for which are obtainable from the Secretary for 4/- each.

SUBSCRIPTIONS.

Members are advised that subscriptions to the Association become due and payable on September 1, 1939.

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South Australia

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION DISCUSSES NEW METHOD OF PEAR PACKING — APPLE AND PEAR SPACE ESTIMATES FOR U.K. AND CONTINENT — CO-OPERATIVE MARKETING UNDER A SINGLE BRAND — STATE COMMITTEES AND THEIR RELATION TO THE APPLE AND PEAR BOARD.

THE MONTHLY MEETING of the Executive Committee of the South Australian Fruit Marketing Association was held at Adelaide on August 25. There were present:—Messrs. A. O. Petersen, R. O. Knappstein, H. N. Wicks, R. G. Hannaford, R. A. Cramond, M. G. Basey, F. B. James, J. B. Randell, F. Rowley, R. H. A. Lewis, G. Quinn, L. J. Bishop, A. R. Willsmore, P. R. B. Searcy, J. H. Dunning, H. M. Charlick, W. F. E. Smith, and the Secretary. An apology was received from Mr. M. J. Vickers.

The President, Mr. J. B. Randell occupied the Chair.

Pear Packing.

A discussion took place in connection with packing of Pears as the result of the information received from Mr. A. G. Strickland, Chief Horticulturist, as the result of his observations in London. The Secretary was instructed to write Consolidated Fibre Products Ltd., asking them to forward sufficient of their "Star Moulded Fruit Pads" to pack: 3 Pear cases, long partition bushel, 3 standard Pear cases, 6 standard Apple cases, and Mr. L. J. Bishop kindly undertook to have some cases packed with this material to enable the members to form an opinion.

It was also agreed to write the Victorian Fruit Marketing Association, asking for their opinion in regard to the suggested new packing.

Correspondence.

Letter dated August 9, from Australian Apple and Pear Board, advising that a report of each meeting of the Board would be prepared and circulated to the approved State organisations and to the Press, and enclosing copy of report on the second meeting of the Board held July 26 to 28, 1939.

Letters from Australian Apple and Pear Council dated August 15, enclosing copy of letter from Department of Commerce re fruit rejected in Colombo on account of codling moth.

August 5, forwarding copy of Australian Trade Commissioner's notes on Canada, Palestine, Egypt, New Zealand and Japan.

August 9, enclosing set of clippings showing aspects of press publicity in Victoria in connection with Apple Week, etc.

Letter from the Government Produce Department, dated August 18, setting out the estimated requirements by the Department for freight space for the Continent for the coming season.

The Secretary advised that he had communicated with members asking if they could give an indication of their probable Continental space requirements, and the replies received were placed before the meeting, and as a result of the information obtained, the Secretary was instructed to forward to the O.S.R.A., the undermentioned figures as representing the approximate quantities and sailings required for the coming season:

CONTINENT.

Apples.

Stockholm	80,000	In 3 steamers	March to 1st Half April
Hamburg	100,000	„ 3 „	„ „ „ „ „ „
Copenhagen	20,000	„ 2 „	„ „ „ „ „ „
Antwerp	40,000	„ 3 „	„ „ „ „ „ „
Dunkirk and/or Marseilles	40,000	„ 4 „	„ „ „ „ „ „
Rotterdam	30,000	„ 2 „	„ „ „ „ „ „
Hook of Holland	10,000	„ 2 „	„ „ „ „ „ „
Total	320,000		

It was estimated that the total export for the season to United Kingdom and Continent would be as under:—

February (3rd week)	75,000
March	350,000
April	275,000
Total	700,000

Pears.

February (1 chamber last half February	15,000
March	30,000
April (Early)	20,000
Total	65,000

Possibly a chamber would be required for Duchess Pears to the Continent.

Co-operative Marketing.

Mr. H. N. Wicks reported that at the meeting of the Research Subcommittee, Mr. R. A. Cramond had initiated a very interesting discussion on the subject of "Marketing" and as a result a resolution had been passed, recommending:—

That the Executive Committee approve of the formation of a growers' committee, comprising of Messrs. R. A. Cramond, M. G. Basey, R. G. Hannaford, J. B. Randell, H. N. Wicks, M. J. Vickers, to formulate a scheme by which groups of growers would combine and provide first quality fruit to be sold say under a single brand in co-operation with the cold stores, and it was also suggested that this committee should work in conjunction with the S.A. Section of the Australian Markets Committee.

The suggestions were approved and it was agreed that the new Committee should meet on September 15, to draw up the suggested scheme and confer with the Markets Committee.

September Meeting.

As the Annual Conference of the S.A. Fruitgrowers' and Market Gardeners' Association will be held on September 29, it was agreed that the September meeting be fixed for Friday, September 22.

State Committees.

Mr. Searcy stated that in all probability, no finance would be available from the Apple and Pear Board to cover the expenses of the State Committees. He read the letter that had been forwarded to Mr. J. B. Mills, setting out the suggestions in regard to the method of allocating quota space in this State, and the Committee formed from the licensed exporters would obviously incur expenses in connection with circulating growers, secretarial work, etc., and members were asked to consider whether this Association was willing to assist financially in carrying out the work of the Board as far as the State Committee is concerned.

After discussion it was resolved:—

"That the Association will make available the necessary finance to cover the work of the State Committee on the understanding that any funds that can be made available by the Board will be on the same basis throughout the Commonwealth."

It was resolved to record in the Minutes, a vote of thanks to Mr. P. R. B. Searcy for his work in connection with the proposed scheme for South Australia.

POTATO GROWERS IN FAVOR OF ORGANISING.

On August 8 a general meeting of Potato growers was held at Woodside, when growers opposed the proposed Federal control of the industry through the medium of a Marketing Board.

The Federal Potato Advisory Committee at its last meeting in Melbourne approved the proposals despite stout opposition from the South Australian representatives, Messrs. C. J. Pitt and W. J. Hemmings.

Mr. C. J. Pitt reported to the meeting the outcome of the above meeting, and Messrs. J. B. Randell (Past President of S.A. Fruitgrowers' and Market Gardeners' Association), and A. Stuart (Secretary) spoke on the need for unity of action, and outlined the achievements of other sections of the industry.

The meeting declared itself in favor of organising, and forming a Potato Section of the S.A. Fruitgrowers' and Market Gardeners' Association.

A Committee was appointed from the meeting to organise growers in the Onkaparinga Valley.

Mr. W. J. Bishop, President of the Association, presided over the meeting.

ROYAL ADELAIDE SHOW.

September 7-14, 1939.

With the excellent quality of fruit and vegetables available in South Australia, it is felt certain that the display of this produce will compare favorably with previous displays.

The Apple Packing Competition at the Show each year has evinced great enthusiasm, and again this year the S.A. Fruitgrowers' and Market Gardeners' Association Incorp. have donated trophies for both the Senior and Junior Competitions.

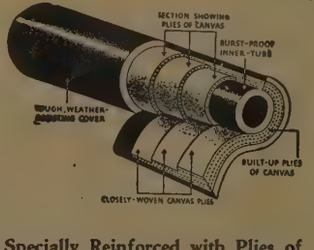
APPLE PUBLICITY IN QUEENSLAND.

Enthusiasm at School Distributions.

White and Black Children Benefit.

The Queensland Apple Publicity Committee is to be congratulated on its initiative and enthusiasm. Much interest has been created in the Apple distributions, with the result that children have been writing and asking that their school might share in the Apple distributions. All of these requests have been attended to.

Recently a request came from a little girl at Augathella, who wrote and said that both black and white boys and girls were fond of Apples where she was, but as fruit was so very dear, they could not get much of it. These children will soon be receiving a case of Apples for distribution.



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Vegetable Culture

NEW STANDS AND SHEDS AT QUEEN VICTORIA MARKET — RAIN AFFECTS CROPS — LEAVE LAND IF WATERLOGGED — DRAINAGE – PLOUGHING TO PREVENT WATERLOGGING — LETTUCE CULTIVATION — TREATMENT OF POTATOES AND ONIONS.

(By Our Correspondent.)

GROWERS who attend the Queen Victoria Market, Melbourne, are from time to time bewildered by the actions of the Markets Committee of the City Council. For many years past many growers have not been able to obtain a permanent stand, and it was only recently, after years of agitation, that new sheds were built. The reason always given by the Council for not building sheds was that the cost was prohibitive for the return received. However, to our utter amazement, we find **that sheds, which have been serving growers quite satisfactorily for many years, are being rooted up and replaced with concrete platforms from which to sell.**

It is certainly not at the request of growers that this work is being done, and it is difficult to see how the cost of this work can be justified at all, for the previous arrangement of a flat surface to sell from was completely satisfactory to both buyers and sellers.

One now wonders if these alterations are the idea of the City Council to save money or to use up a surplus from a market which in the past has always been referred to as a losing proposition.

Weather Affects Crops.

The long wet and cold Winter which we are having is showing a very marked effect on the growth of vegetables, and wherever the state of the land will allow, constant working should be given the crops. **Land which has become thoroughly soaked and waterlogged is best left alone, however, if the weather is at all damp. Working this class of land in the wet only aggravates** the position by allowing moisture to soak in, whereas it runs off when a crust has formed on the surface.

If a wet piece of land, which holds a crop which has not been too badly affected, has a few open drains dug through it, the crop will very often be saved.

Of course, you lose some of the plants in the digging, but with the prospect of good prices for Winter Cabbage and late Cauliflowers, it will often pay to give this extra attention to the crop.

If the cross drains are run into one main drain, it allows a continual soakage.

In time of rain and flood the great value of not making lands too big is clearly demonstrated, and when a six foot land taking two rows of Cauliflowers or a five foot land taking two rows of Cabbage, is used, it is found that the water runs off down the furrows, and never leaves the plants with wet feet if the land is properly drained.

A good method to follow when ploughing into this sized land, and the land is lying level, is to leave the ploughed land on your left hand, and as you strike your furrow for the crown leave two furrows on your left.

In this way it will be found that three rounds just make a nice sized land, but care must be taken when making the crown not to throw the second furrow too far over the first, for if this is done it makes a flat land and not one with the highest point in the middle.

The second round is ploughed narrow or broad, according to the crop which is being planted. A good furrow for the last must always be kept, otherwise the plant hangs over into the furrow as it grows.

Lettuce Crop.

Lettuces are a crop which will not respond much to treatment in the very cold weather, and should not be worked very deeply after they are half grown. The Dutch hoe, run down between the rows is quite sufficient. A dressing of ammonia (sulphate) is of great assistance to this crop.

Lettuce can still be transplanted with safety, i.e., they may be taken from a seed bed or pulled out of a growing crop which needs thinning.

To obtain good results, plants should not be too big, for transplanting. A good guide to size is that the root should not be longer than can be pushed into the ground with the finger when planting, for if the end of the root gets turned up it is fatal to good results, and, of course, the root should not be cut or broken. Being a tap root plant, it is essential that this central root is not damaged.

Lettuce seed planted now will cut in the late Spring.

Potatoes

are now starting to show through the ground from the July planting, and a light harrow run over them soon after they are through the ground will do a lot of good, and often check the Pea Mite, which may be expected to be a pest this season. It seems that Pea Mite thrives in the wet seasons. If it is in plague form, Pea Mite Powder, applied with a dust pump, is very effective, and, as it is contact or fumes which destroy this pest, dusting should be done on a calm, dry day. A good time to apply is early morning or evening, for it is then that the Pea Mite is most active.

Potatoes should be hoed soon after they are up, so as not to disturb the runners which start to go out, as soon as the plant is any size. If the weather continues to be wet, a dressing of ammonia will be found very good, but **care must be taken to see that no ammonia goes on the plant, for wherever this manure touches the foliage it will burn black.**

Early white flat

Onions

are now making a bulb, and, if necessary, weeds can be gently pulled, but do not crawl through this crop now, as it breaks the leaves and helps to bring mildew.

BRONZE OR SPOTTED WILT OF TOMATOES.

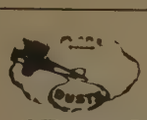
USEFUL EXPERIMENTS are continuously being conducted by the Plant Breeding Section of the N.S.W. Dept. of Agriculture. Mr. H. Wenholz, the Director of Plant Breeding, has made available the following information regarding the bronze or spotted wilt of Tomatoes, as follows:—

Commercial growers of Tomatoes are troubled greatly by this disease. Although charlatan cures are sometimes foisted on the public, it can be emphatically stated that there is no preventive or curative treatment for this wilt, which is present in some garden plants, and which is transmitted to Tomatoes by an insect vector.

Mr. Shirlow, Plant Breeder at Hawkesbury Agricultural College, has for some time been investigating the possibility of breeding a commercial variety resistant to spotted wilt.

It may be pointed out here that the term "resistant" does not imply that a variety will not be attacked by the disease, but that a relatively small percentage of plants will suffer, or that the plants will be relatively tolerant of the infection. "Immunity" is the term generally accepted for absolute freedom from and apparent impossibility of infection, and is a rare occurrence in any plant.

The Red Currant Tomato (**L. Pimpinelli-folium**) has never been found to be infected with spotted or bronze wilt of Tomatoes during several years at Hawkesbury Agricultural College, when other varieties have been heavily infected, and it is therefore considered that this Tomato possesses immunity or high resistance to this disease.



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395 Queen Street
MELBOURNE

The cultivated Tomato is a native of South America, where it and some related species are still to be found growing wild. **Lycopersicum peruvianum** is one of these species of which seed was recently introduced from Peru. It has also been so far observed to be free from spotted wilt. Mr. Shirlow is endeavoring to cross this species with cultivated varieties, but so far has not met with success. He has, however, several fixed crosses of cultivated varieties with the Red Currant Tomato, and some of these have remained free from wilt for a few years. It yet remains to be determined whether any of these lines are worthy of becoming commercial or home garden varieties.

A few commercial varieties, one of which is **Antibes**, now listed by a local seedsman, have been observed to be free from wilt at Hawkesbury Agricultural College. Although such varieties appear to have resistance to spotted wilt, their freedom from the disease so far experienced cannot yet be indicated with certainty as resistance. It can only be said that growers may be taking less risk with these varieties than with others known to be quite susceptible.

DISTRIBUTION OF VEGETABLES AND FRUIT.

Poor to Benefit.

At a recent meeting of the Health Committee of the Sydney City Council, it was decided that the council should ask the Government to co-operate with them in distributing surplus fruit and vegetables to poor families. When it was reported that the council was not authorised to provide funds for such a purpose, it was stated that an amendment of the Corporation Act should be sought, or the Government should assist in establishing an organisation to distribute the surplus material. It was thought that as there was already an organisation in existence which distributes milk to kindergartens, this would simply have to be extended. Mention was made of the fact that the Apple Association had distributed quantities of Apples to schools.

TASMANIA PROHIBITS IMPORTATION OF VICTORIAN VEGETABLES.

Because of the danger of infestation by Cabbage White Butterfly, the Tasmanian Government has prohibited the importation from Victoria of Cabbages, Cauliflowers, Lettuces and other vegetables of the order cruciferae, unless they are certified free from infestation. This means that they require certification of inspection three months prior to shipment, and a further certificate that they were inspected immediately before shipment and declared free from the eggs, larvae, and pupae of the Butterfly. The Department of Agriculture has advised that growers who desire to supply the Tasmanian market should apply to the Department for an inspection of their properties.

GLASSHOUSE TOMATOES.

The "Streak" Disease."

The "Streak" Tomato disease has been giving some trouble lately. It generally affects the early Tomatoes, practically disappearing when the warm weather comes. Besides occurring on the fruit, it also appears on the foliage and stem. The lower trusses of fruit are the first to show symptoms, the irregular blotches being small, sunken, and brown in appearance.

Once it gets into a glass house it spreads quickly, especially during pruning, when the sap in the stems is carried on the hands and secateurs to infect other plants. Affected plants should be removed and burned, and the hands washed thoroughly in soapy water before being allowed to touch clean plants.

As with spotted wilt of Tomatoes, there appears to be no cure for this trouble, neither spraying nor dusting being effective. The only safe course is to destroy plants and see that no seed. is saved for subsequent plantings from fruit that has come from vines that, at any stage of their growth, showed the suspicious mottling of the foliage.

A KINDLY THOUGHT.

Orphan Boys Will Benefit.

During the visits of members of the Victorian Apple and Pear Publicity Committee to schools and charitable organisations, it was found that at the Gordon Institute for Boys, there were several lads who had never been to the country.

When a member of the Committee mentioned this fact, several donations were promptly forthcoming to enable these boys to attend the Field Day to be held at the orchard of Mr. F. G. Beet, Vermont, on October 5. Transport will be provided, and arrangements made for entertaining the boys. The lads are looking forward to this outing with keen anticipation.

Increased Production of Apples and Pears

DEVELOPING THE AUSTRALIAN MARKET IS ESSENTIAL.

AMPLE COOL STORAGE SPACE NECESSARY.

THE production of Apples and Pears is increasing each year in all States of the Commonwealth, due to larger areas coming into bearing, and the profitable marketing of such increased production is probably the biggest problem facing the fruit industry at the present time.

Not only is it necessary to influence the public to eat more Apples and Pears, but it is essential that some means should be found for increasing the avenues for sales of Apples and Pears, and to do this satisfactorily it is imperative that the marketing of crops harvested should be spread over as long a period as possible.

If the market is over-supplied at any period of the year due to lack of facilities for holding the fruit, the market becomes glutted, with a resultant drop in the prices, and sales become unprofitable.

With the gradual extension of the electric supply network, quite a number of orchards can now be connected to an electric supply, and so keep down the cost of the original installation of a refrigerating plant. Where electric current is not available, the new small H.P. crude oil engines are quite a good proposition. Whilst the initial outlay is greater for the crude oil power, the annual over-all running costs are slightly less than electricity.

With the electric drive the owner could, if he desired, instal his plant on full automatic control, but in most cases the operation of the plant is so simple that manual control is generally satisfactory. It is, however, a fact that the more even temperatures maintained by the automatic control will result in better storage conditions for the fruit.

There are many other advantages to be gained by a cool store on the orchard—for instance, space can be provided for grading and packing fruit as it is taken from the store, thus saving time of carting fruit to the large cool store and the re-grading when it is necessary to pack for market.

A typical 6,000 case fruit store.

A census of the population of Australia and fruit consumed indicates that if each person could be influenced to eat an Apple per day this would result in a considerable increase in sales.

The Australian Apple and Pear Council, through its Publicity Committee, has done excellent work over the last two years in popularising Apples and Pears by various publicity methods, and it is confidently anticipated that with a continuity of the campaign the consumption of Apples on the local market can be so substantially increased as to make export a secondary consideration.

The unsettled conditions in overseas countries, with the possibilities of limited shipping space during the forthcoming season, still further stresses the importance of developing local markets. It has long been realised that local markets cannot be developed to their fullest extent unless the period for selling fruit is distributed throughout the year.

Cool Stores on the Orchard.

In various States of the Commonwealth cool stores have been erected and are providing facilities for storing fruit in order that the marketing period may be extended, but increased production each year necessitates still further storage space. In some districts, although there are large cool stores, there is difficulty in obtaining space when a normal crop is harvested. To overcome this position many individual growers have found it necessary to erect cool stores on their own properties. A privately owned store has everything to recommend it, and it is the considered opinion of those in a position to know that an orchard producing over about 3,000 cases of fruit per annum can use a cool store to advantage.

We illustrate on this page a typical 6,000 case fruit store which provides ample provision for packing and grading, together with convenient loading facilities. In addition, space can be provided for storing other items used in packing and preparing fruit, such as cases, wood wool and wrapping paper. Other items such as spray materials, fertilisers, etc., can also be conveniently stored.

A cool store such as that illustrated is a decided asset to a property and increases the capital value. Buzzer chips or sawdust will always take first place in the low cost and construction of orchard cool stores, and it now remains for a cheapened and yet satisfactory method of building to be worked out. Many growers have found the use of corrugated galvanised iron advantageous. Galvanised iron can be used for both external and internal walls of the rooms, using a minimum amount of timber in the framework. Low first cost of construction and minimum upkeep would result from such a store.

Where sufficient capital is not available to cover the initial cost of erecting a cool store, arrangements can be made with Messrs. R. Werner and Company Pty. Ltd., refrigerating engineers, well known as the pioneers of cool storage in Australia, for finance to be arranged on an extended and satisfactory basis. In this respect Messrs. Werners place the advice of their engineers at the service of fruitgrowers, and they are always ready to discuss cool storage problems and submit estimates and other details concerning the erection of a cool store.

Cool Stores in Canneries.

In recent years fruit canners have realised the benefits of cool storage for use in connection with their canning activities. A number of the leading canneries, including Shepparton, Ardmona, Kyabram and the Australasian Jam Company have erected cool stores as adjuncts to their canneries and approximately 500,000 cases of fruit can be held in these various stores.

Ability to cool store fruit before canning has enabled the canners to smooth out the peak periods, cut down overtime and holiday work. Recent investigations have revealed many additional advantages to the canner by having a cool store attached to the cannery, and it is forecast that still greater use will be made of cool storage in this particular section of the fruit industry than in the past.

Cool Storage of Pears.

Whilst the Sydney and Brisbane markets have been developed in recent years for the marketing of Victorian Pears, it appears that there has been a falling off in the sales of Pears in the Melbourne markets. This is partly due to the fact that the Pear loses its attraction with the approach of the Winter months, when the temperature is lower than necessary for the proper ripening of Pears. This defect is overcome when the fruit is sent to the Northern States because the warmer climate enables the Pears to ripen and the fruit to come to maturity much better than in the Southern States.

It would appear that some effort should be made to overcome this problem as far as the Melbourne markets are concerned, in order that the market on the spot can be developed to its fullest extent. There is need for experimental work in this connection, particularly in regard to the artificial ripening of Pears controlled in somewhat the same way as the ripening of Bananas. If the Pears could be ripened and brought to maturity in the Southern States, where climatic conditions are colder, there is no doubt that the Melbourne consumption of Pears would be considerably increased during the Winter months.

Elimination of Soft Scald or Breakdown in Cool Storage.

It is reported that large losses are experienced each year by growers on account of their Jonathans developing the disorders Soft Scald or Breakdown in cool storage. It has been found by investigation that both of these disorders may be almost entirely eliminated by paying due regard to picking maturity and storage temperature. If picked overmature, in an effort to gain extra red blush on the Apple, the Jonathan is subject to early breakdown in storage. For long storage the Jonathan should be picked when the ground color is green-yellow, irrespective of the amount of red blush then developed. Fruit should then be stored at 36 deg. until the end of April, 34 degrees until the end of May, and 32 degrees thereafter. Cool stores which adopted these recommendations last year have reported an almost complete absence of Scald. Varieties not subject to Soft Scald may be stored at 32 degrees continuously, for it is well known that the longest storage life is obtained by storing at the lowest possible temperature.

The foregoing information directs attention to the advantages to be obtained by picking at the correct time and storing at the correct temperature. This not only applies to Apples, but also to Pears, Plums, Peaches and other fruits.

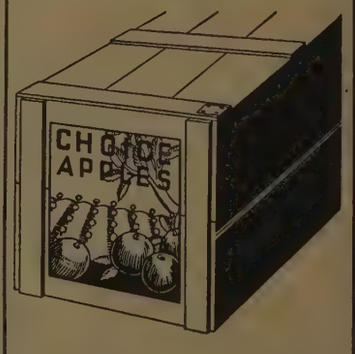
The object of this article is to bring before growers throughout the Commonwealth the important part that cool storage can play in the general marketing scheme of fruit, and, as in other matters, close attention to details and recommendations will bring the best results for all concerned.

The firm of Messrs. R. Werner and Company Pty. Ltd. are closely in touch with cool stores and their representatives throughout the year gather much valuable information which they are always ready to impart to growers. Those growers who will be visiting Melbourne for the Royal Melbourne Show are invited to call at Messrs. Werner and Company's stand at the showgrounds and discuss their problems and various aspects of cool storage. Their stand is situated at the corner of McCracken-avenue and Lobb-street. Visitors are also welcomed at their works, which are situated in Burnley-street, Richmond.

AUSTRALIAN APPLE AND PEAR BOARD.

A meeting of the Executive of the Apple and Pear Board was held during August, Mr. J. B. Mills presiding, when many matters of detail were considered, including the question of licenses and permits for export. The next meeting will be held at the end of September.

A meeting of the Australian Apple and Pear Council will be held at Melbourne on October 3, when details will be finalised concerning the taking over by the Board of activities of the Council. Reports on publicity will also be dealt with.



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With this easy to use cold water paste the labels always stay on

Obtainable from all Hardware, Paint and other Stores.

Forthcoming . . .

Royal Melbourne Show

September 21 to 30, 1939

Excellent Provision to be Made

Those growers and organisations which take the opportunity of entering in the competitive and non-competitive sections at the Melbourne Royal Show are to be congratulated on their enterprise. Fruit displays are appreciated by the public and, in addition to providing a break from the utilitarian side of the Show, provide an opportunity to advertise fruit.

In its schedule of prizes the Society makes very generous provisions. In the Apple Section, open to organisations or individual growers, a special prize of £5 is awarded for fruit which is, at the conclusion of the Show, in the best condition, provided there are at least three exhibits.

The Governor General Shield, presented by Viscount Novar, is also open for competition and the Perpetual Challenge Shield presented by the Cool Stores Association of Victoria.

In the Apple Packing Competition, the first prize is a shield valued at 25 guineas, presented by the Exporters Handling Committee, and the special shield and card for the best case of Apples in any section of the Apple Packing Competition; a shield valued at £10/10/- is presented by the Gerrard Wire Tying Machines Co. Pty. Ltd. for the best case of Apples. This company also gives prizes of £3, £2 and £1 for individual competitors who pack the three best exhibits in the open class until the Challenge Shield has been won outright.

Good prizes are also offered in the class for individual cases of Apples and Pears. The general fee for this section is 8/-; members 5/-.

In citrus fruits the competition takes place for prizes of £10, £5 and £2 for the best collections of packed citrus fruits. This is open to any Australian citrus growers' associations affiliated with the Central or Governing Citrus Association, or any grower or growers affiliated with any of the affiliated Associations. The Rupert Watson Shield, presented by Rupert Watson, is also competed for in this section.

Good prizes are also offered in the Export Packing Competition. The Isaac Shield, presented by M. Isaac & Son Ltd., London, is also competed for in this packing competition.

In dried fruits a special prize of £5 is awarded to the most successful exhibitor in the Dried Fruit Sections. This is awarded on a points allocation. Each exhibit in this section must be taken from the run of the pack and from a line of any lots of 40 packs excepting in the case of tree fruits.

The non-competitive displays of dried fruits, Apples, Pears, canned and other fruits in the Government Pavilion and the Hall of Commerce are also an attraction for visitors to the Melbourne Royal Show.

In the ground section the working displays of orchard requisites, implements, packing and grading machines, spray plants, tractors, spray materials, etc., also provide considerable interest.

At the stand of **Messrs. H. V. McKay Massey Harris** will be the "Sungrubber" utility tool which provides a new service in vineyard cultivation. Other items of interest on the stand will include Sunshine Massey Harris Orchard Tractor, and a complete range of orchard implements and motor spraying outfits.

The stand of **Messrs. Daniel Harvey Ltd.** will contain working demonstrations in fruitgrading and packing-house equipment, including polishers (the new horsehair belt brusher was a feature of this machine), Apple and Pear washers, fruit graders in various sizes. In the implement section, Tractor Power Lift Spring and Rigid Tyne Cultivators, Patent Offset Tandem Disc Cultivators, 3-Furrow Tractors and Petty Ploughs will be displayed.

The **Sulphate of Ammonia** distributors will have their usual stand, and enquiries on the fertiliser question will be welcomed.

The Bave-U Power Sprayer will be demonstrated at the stand of **Messrs. Russell & Company.** The underslung model, which has been enthusiastically received in fruit areas throughout Australia is of particular interest.

Messrs. Victor Leggo & Farmers Ltd. will show a complete range of spray materials, and a cordial invitation is extended to growers to call at their stand.

Messrs. Ronaldson Bros. and Tippett Pty. Ltd. will demonstrate their motor spray plants. Sizes and types of Ronaldson-Tippett spraying plants are to be found for every kind of orchard.

The Neptune Oil Company's stand will include Red Spraying Oil, Palsol, Clarigol, White Spraying Oil, Lime Sulphur Solution, Bluestone, Colloidal Lead Arsenate, Berger's Arsenate, etc.

The International Harvester Company: The McCormick-Deering 0-12 Tractor, specially designed to help orchardists, will be a feature at this firm's stand.

Messrs. Trewhella Bros. will have their usual display of tree pulling and grubbing machines. The Monkey Grubber, which is a combination of many time and labor-saving devices, is well worth inspection.

The fruit-grading machines at the stand of the **Lightning Fruit Grader Company** will be in their usual position. All types of Lightning packing house equipment will be exhibited, including washing, sterilising, drying and polishing outfits, sizers, dehydrators, lidding presses, etc. A complete range of orchard implements is also being staged.

The Howard Rotary Hoe will demonstrate modern methods of cultivation at the stand of E. Hassett & Son. This rotary hoe which effectively chops up, kills out, and mixes with the soil such superfluous growth as thistles, bracken, couch grass, paspalum, is an outstanding machine.

The Gerrard Wire Tying Company's stand, always a source of interest, will contain everything necessary for wire-tying equipments and packing house supplies will be found in their usual position.

The English Fordson Tractor, together with the famous Oliver plough, is to be demonstrated at the stand of **Messrs. Malcolm Moore Ltd.**

At the stand of the **Vacuum Oil Company Pty. Ltd.**, Gargoyle white spraying oil and other spray lines will be shown.

COOL STORED FRUIT.

Apples and Pears in Victorian Cool Stores.

A report to hand from the Government Statist shows that at July 31 there were 576,000 cases of Apples and 66,000 cases of Pears in cool store in Victoria.

PUBLICITY AND RESEARCH.

Federal Acts to Come Into Operation On January 1.

½d. Per Case On All Apples and Pears Sold in Australia (Other Than For Processing).

PREPARATIONS ARE BEING MADE for the Apple and Pear Publicity and Research Act to come into operation on January 1 next.

The Act is designed to provide funds for publicity and research—though the word "research" is capable of being interpreted as relating to market research.

The funds are to be administered by the Australian Apple and Pear Board for the following purposes:—

(a) For the purpose of increasing and extending, by publicity, research or any other means, the consumption of Apples and Pears throughout Australia.

(b) For any purpose which the Board deems to be necessary or desirable for the improvement of the production of Apples and Pears in Australia.

(c) In payment of the expenses of, and charges incurred by, the Board, or for which the Board becomes liable, under this Act.

The Apple and Pear Tax Act states that a tax of ½d. per case shall be imposed upon Apples and Pears grown in Australia and sold by or on behalf of the grower, subject to a lower rate being prescribed by regulations.

The recommendation, however, is that the levy shall be ½d. per case.

Assessment Methods.

The Act under which the Australian Apple and Pear Council Board operates in this connection is the Apple and Pear Tax Assessment Act.

Amongst the many things covered by this Act, is the fact that the Commissioner of Taxation may appoint a delegate to act in accordance with his wishes for any stated period of time. **All officers are bound to secrecy, with a heavy fine as penalty.** The Apple and Pear Tax shall be paid—

(a) When the Apples or Pears are sold by a fruit agent for or on behalf of the grower—but the fruit agent.

(b) When the Apples or Pears are sold by the grower to a wholesale fruit merchant—by the wholesale fruit merchant; and

(c) When Apples or Pears are sold by the grower in any prescribed market or class of market, or to any prescribed persons or class of persons, or in any prescribed manner (not being sales to which paragraph (a) or (b) of this section applies)—by the grower.

This tax is not payable on fruit exported or to be exported and fruit processed by the grower or sold to a fruit processor.

Quarterly Returns.

Returns in respect of all Apples and Pears sold or purchased by a grower or agent are to be furnished at the end of March, June, September and December. The Commissioner may also call upon any person to furnish to him any other or fuller return. He may also call upon a person to show books and documents, or to give evidence before him on oath.

Apart from reasons which the Commissioner may think are sufficient, a person may have to pay the tax plus 10 per cent., if the tax is not paid within the specified time.

If the Commissioner is of the opinion a tax or further tax is payable by any person, he may assess the amount of the tax to be paid, and this must be paid unless it can be established that the tax is excessive.

Any tax unpaid, may be sued for. If sufficient evidence is supplied to show that any person has overpaid any tax, the Commissioner may make a refund.

THE BRYTENE SYSTEM FOR WAXING.

Manufactured by Hardie Trading Pty. Ltd., Melbourne, Spartan Brytene is a wax emulsion identical with the product with the same name, which for some years has been used in U.S.A. with great success. In America, its use has now spread from citrus to deciduous fruits, and the last two years have proved that Brytene can be used advantageously on most vegetables.

Brytene is an aqueous emulsion of chosen natural waxes. These waxes are produced by nature to prevent desiccation of young leaves of the plants from which they are taken and are re-applied conveniently as an emulsion for the same purpose. The ingenuity of the formulators of this product have, however, improved on nature by so dispersing and blending these waxes that any degree of gloss can be added to the treated product.

Unlike other waxing systems, the Brytene process does not call for expensive and sometimes troublesome equipment. All that is necessary is to immerse the commodity to be treated in the bath of emulsion, and allow it to dry. No polishing is necessary, as a high gloss can be obtained without using polishing brushes, the gloss appearing as the fruit dries. Special formulae are available to suit gloss requirements and storage conditions met with the various commodities involved.

Brytene is not a preservative. Its use is to improve the appearance and maintain the condition of fruits and vegetables during the whole of their natural life. It has been adopted very widely in U.S.A. where increased prices are obtained for Brytened fruit. The cost of treatment is very low, an average case of citrus costing only about ½d. to treat and the fruit has been valued by disinterested authorities, as worth shillings more per case than the same fruit untreated on arrival at its destination.

The maunfactures, Messrs. Hardie Trading, have adjusted the procedure to suit Australian conditions, and will gladly place their expert on the processes at the service of any interested packer. Arrangements for such services can be made by calling at their Stand, No. 321 in the Hall of Commerce, at the forthcoming Royal Melbourne Show.

Fruit Trees
Fruit Trees
Fruit Trees

Best Obtainable – Catalogue Free.
Quality first and all the time.
Book Now for Delivery June-July.
Orders reserved.
Available Largest Stocks in Australasia.

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Somerville Nurseries,
Somerville, Victoria Australia
Orchard & Nurseries 208 Acres.
Private Cool Stores, 17,500 Case Capacity.
— Established 1866 —
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Herbert Wilson Pty. Ltd.

WHOLESALE FRUIT MERCHANTS
AND COMMISSION AGENTS

Nos. 1 and 10, Wholesale Fruit Market, Melbourne.

Accredited Agents for Victorian Central Citrus Association and Affiliated Association.

City Telephone: F 6444. Private Phone: M 3055.

Bankers: National Bank of Australasia (Western Branch), Melb.

... FOR MEN ...

Many men have the impression that a Savings Bank Account is suitable only for women and children, and that it is neither convenient nor dignified enough for business men.

Certainly those business men who have many payments to make over a considerable area need cheque accounts, but even those, in common with all other men, will find the Savings Account a most useful and convenient aid to money accumulation.

There is nothing undignified in the transaction of Savings Bank business, but there is interest profit to be earned on such monies as would otherwise lie idle.

Throughout Australia there are Branches and Post Office Agencies of the

Commonwealth Savings Bank of Australia

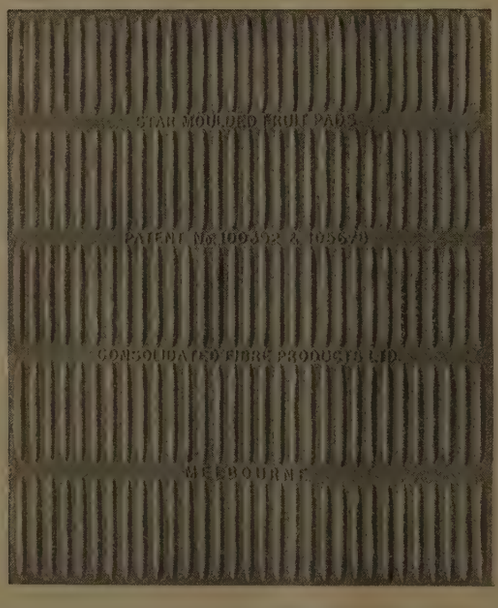
(Guaranteed by the Commonwealth Government.)

Better Packing —— Bigger Profits

Use—

"Star" MOULDED FRUIT PADS

(Patent)



Moulded corrugated pads are the greatest advance ever made in fruit packing. They are resilient, odourless, moisture-proof. They act as a cushion and give better air circulation thus preventing damage to the fruit whilst in transit or in Cool Store.

SIZES:—12 x 6, 13½ x 6, 12 x 14, 17½ x 8, 17½ x 11.

"STAR" MOULDED FRUIT PADS are made in light grey or royal blue. These colours are fast dyes and will not taint the fruit.

PRICE LISTS UPON APPLICATION.

Sole Manufacturers:—

CONSOLIDATED FIBRE PRODUCTS LIMITED

321 William Street, Melbourne, C.1.

ORCHARDING FOR PROFIT.

FOR MANY YEARS the orchardist has been inclined to regard the tractor as a lusty plow puller—a power unit to be used only for the few really big jobs in the orchard.

The modern tractor, however, has a much wider range of use and is definitely a most profitable investment for the orchardist who desires to keep abreast with the times and at the same time to increase his profits.

It saves time and money throughout the year in every operation from the preparation of the land to the hauling of the product to packing shed, cool store, or market.

Such tasks as grubbing, ploughing, rolling, harrowing, spraying, dam excavating, pumping, timber cutting, and a hundred and one other jobs can be carried out with greater speed and efficiency with the assistance of a tractor. Many fruit growers throughout Australia have adopted the tractor method with great success.

An ideal tractor for orchard work is the all-purpose English Fordson. It is powerful, economical, low in price and its design allows it to work under low hanging branches, whilst the short wheel base enables it to be turned on the head lands with the greatest of ease.

The 26 h.p. engine, which operates on power kerosene, provides ample power for every orcharding job. It can operate hour after hour without attention, either as a mobile unit for drawing implements, or as a stationary engine for all kinds of belt work.

Working an orchard is like any other industry—profits depend directly on the cost of production. Economy in operating, implement depreciation, and the saving of time and labour, are factors which must be taken into consideration if reasonable profits are to be earned.

Considering the many uses to which the modern orchardist can put his tractor, it is not surprising that he is becoming increasingly interested in the advancement made in improving the working efficiency of the tractor itself.

The greatest advance in recent years, is the adoption of low pressure pneumatic tyres. If any particular work requires the use of steel wheels and grips, the Fordson may readily be changed over to that equipment.

Built entirely at Dagenham, England the Fordson tractor is specially designed to suit Australian conditions. To Fordson engineering and production resources has been added the quality of finest Englsh material and the skill of British engineering and workmanship.

The fact that outstanding features such as, oil bath air cleaner, heavy duty transmission, Governor control, optional speeds, truck type steering, statically and dynamically balanced crank shaft, exhaust valve inserts, etc., have been incorporated in this powerful and reliable tractor without any increase in the present low purchase price, speaks well for the production methods of the famous Dagenham Works.

Malcolm Moore Limited of 601 Little Collins-street, Melbourne, who are Fordson agents for Victoria, Riverina, and Tasmania, advise that this tractor, together with many other items of interest to the man on the land, will be displayed at their Stand No. 174 Plummer Avenue, at the Royal Melbourne Agricultural Show.

In the Dried Fruits area of Mildura, the Fordson proves its adaptability and economy in cultivating between the Vines and its ease of turning on the headlands.

HAWAIIAN PAPAWS FOR U.S.A.

Precautions Against Fruit Fly.

HAWAIIAN PAPAWS can enter the U.S.A. only after a special treatment. The fruit is carefully selected as to maturity and freedom of scars and diseases. It is taken in charge of U.S.A. inspectors and placed in a room which is sealed and fruit is subjected to 110 deg. F. interior temperature for eight hours.

First it must be slowly brought up to 110 deg. and held there for the required eight hours period. A guard is placed before the door and no outsider is permitted to enter or to tamper with the fruit or touch it during its treatment. It is cooled properly, and then packed, all under Federal inspection, and put on board the steamer for the mainland.

Further than that a coast guard cutter follows the ship out for several miles to see that no narcotics are taken on board or fruit either. Several shipments have been made to California and farther east, and the fruit has generally arrived in good condition, and, of course, free from the Fruit Fly.—"California Citrograph."

Wanted to Sell, Buy or Exchange

Advertising Rates: Casual Advertisements 2d. per word; regular advertisements 1½d. per word.

This column will help you to dispose of unwanted machinery, etc., or obtain offers from other readers.

FOR SALE.

Double Furrow Harvey Orchard Plow, Circular Coulters, no further use.—M. L. Burgi, Wandin North, Victoria.

Refrigerating Plant, 5 ton, Werner, complete with piping, coils, etc., for 4,000-case cool store. Also Ruston Hornsby 16 h.p. engine, if required. Pigdon, Narre Warren, Victoria.

Sprays, motor. Two, good order, 80-gallon vats, £18 and £35 each. 90 Princes Highway, Dandenong, Victoria. Phone: Dandenong 400.

BOOKS.

"QUINN'S PRUNING."—A useful handbook on fruit tree and grape vine pruning. 280 pages, well illustrated. 5/3 post free. Secure a copy now from Box 1944, G.P.O., Melbourne, Victoria.

WANTED TO BUY.

Three or Four Furrow Harvey Power Lift Tractor Plow.—M. L. Burgi, Wandin North, Victoria.

Victorian Fruit Marketing Association

Meeting of Executive Committee

THE monthly meeting of the Executive of the Victorian Fruit Marketing Association was held in the Board Room, Commercial Travellers' Association, Melbourne, on Friday, August 18, 1939, at 10.30 a.m.

There were present: Messrs. W. P. Hutchinson (President), W. H. Carne, A. S. Harrison (Vice-Presidents), J. G. B. MacDonald, M.L.A., W. Young, F. R. Mellor, G. H. Sprague, E. Russell, F. Cave, K. Weeding, J. J. Tully, H. J. Noonan, F. Moore, L. G. Cole, R. A. W. Bailey, K. V Eagle, H. M. McLean, also Messrs. E. Noonan, F. Beet and W. A. Thiele (Southern Fruitgrowers' Association), W. M. Carne (Department of Commerce), also the Secretary, R. E. Boardman.

Bounties For Primary Industries.

On the motion of Messrs. McDonald and Russell, it was decided:—

"That this Association affirms the principle that financial assistance to exporting primary industries and the stabilisation of such industries is a Commonwealth responsibility."

2¼ in. Rokewoods.

The Apple and Pear Board wrote in response to our letter, stating that the Board was unable at this juncture to recommend approval for the exportation of these Apples, but further enquiries were being made.

Mr. W. H. Carne submitted figures showing favorable prices received in the United Kingdom for 2¼ in. Rokewoods.

Mr. W. M. Carne (Department of Commerce) stated that this matter was being discussed at the Conference of the State Supervising Officers. It was decided to await further advice from the Board as to the possibility of exporting small Rokewoods when seasonable conditions warranted same.

State Quotas.

With reference to the letter from the V.F.M.A. to the Apple and Pear Board concerning the administration of the State quotas, particularly in relation to the encroachment on Victorian space by fruit from other States, the Apple and Pear Board wrote stating that consideration would be given to this matter in connection with the issuing of licenses and permits. Noted.

Mr. Young directed attention to the responsibility now resting on growers, under the Act, for forecasting export shipping space requirements and definitely applying for such space.

Mr. Moore pointed out that should there be disagreement in the Board on the subject of allocation of State quotas, the matter would go to arbitration, when the evidence of applications from growers would be called for—this being a new responsibility, and differing from the old arrangement whereby shippers underwrote the space.

Mr. Young said it would be too cumbersome to issue export licenses to growers, and moved—

"That this Association recommend to the Board that the Victorian Fruit Exporters' Handling Committee, together with the State members of the Board, be approved as the forecasting body in Victoria."

Mr. Cave seconded. Carried.

Mr. Weeding reported that a general application form for fruit shipping space was being sent to growers in Victoria by the Fruit Exporters Handling Committee.

Mr. Young moved—

"That this Association does not approve of individual growers being licensed to ship fruit for export, but that licenses be issued only to approved shippers."

Mr. Cole seconded. Carried.

Finance For The V.F.M.A.

In response to the request from the V.F.M.A. to the Apple and Pear Board, for continuance of finance on the same basis as from the Apple and Pear Council, the Board wrote stating it was not possible to continue this arrangement.

Mr. Moore stated that while the Apple and Pear Organization Act was being considered, the then Minister for Commerce (Mr. Cameron) gave an unqualified assurance that funds for State organizations would be provided for under the Act. The present situation was a distinct breach of that arrangement.

In response to a suggestion that the Act be amended, the Chairman and Mr. Young were definite that this procedure would be unwise at this early stage of the Board's operations, even if the Board agreed to request an amendment of the Act. Further, there was no chance of the Board agreeing to this proposal, as the other States had their own means of raising finance.

Mr. MacDonald and Mr. Harrison outlined proposals for raising the needed finance. It was finally decided, on the motion of Messrs. Young and Cole, to appoint a Committee to prepare a report for the next meeting.

The Committee appointed was as follows:—Messrs. Mellor, Tully, and Cave (the present Finance Committee) together with Messrs. MacDonald, Noonan, Weeding and Sprague.

Fruit Selling Hours.

Mr. MacDonald reported that the Government had agreed to the wishes of the growers in relation to fruit selling hours and would introduce a Bill to remove the present restriction on the sale of fruit at sports grounds, race meetings, etc., on Saturday afternoons in Winter.

Fruit Packers.

In response to letter from the V.F.M.A. to the Minister of Agriculture requesting the Department to continue its packing class facilities and to issue certificates to qualified packers, the Director of Agriculture, Mr. Mullett, wrote stating that provision had been made on the draft estimates of the Department for the appointment of an additional Fruit Packing Instructor, and if this were approved consideration would be given to the request for the issue of certificates to qualified packers.

Water Rates.

Mr. Moore reported an approach by the Nurserymen and Seedsmen's Association directing attention to the charge of 1/- per 1,000 gallons of water, which was deemed to be excessive. It was decided to reply agreeing to co-operate with other organisations in an approach to the Melbourne and Metropolitan Board of Works to secure a reduction in water charges—Members of Parliament to be invited to assist.

Death of Two Members.

The Secretary reported that two members had recently died—Messrs. A. E. Frankling and T. E. Eagle. It was decided to send letters of sympathy to the relatives.

Bitter Pit.

Mr. R. A. W. Bailey reported that Bitter Pit was prevalent in Granny Smith Apples in the Gippsland District, thus causing losses to growers. He moved that the Department of Agriculture be requested to conduct research into this problem.

In seconding, Mr. Weeding stated he understood that the Department was conducting experiments in connection with this problem at Kiewa. The motion was carried.

OUTSTANDING ROYAL MELBOURNE SHOW EXHIBIT OF SUNSHINE AND MASSEY HARRIS ORCHARD AND VINEYARD MACHINERY.

The exhibit by H. V. McKay Massey Harris Pty. Ltd. at this year's Royal Melbourne Show will have special interest for the fruitgrower, as it includes several entirely new implements and machines.

A Sunshine Massey Harris orchard tractor, 16/26 h.p., low-set and streamlined, is fitted with "Hoist" and 12-tyne cultivating attachment, while a 2-gang, 10-disc harrow attachment is exhibited nearby.

The orchard tractor has individual steering brakes, short turning radius, adjustable steering wheel, low-set exhaust and air-cleaner pipes, and a low-set streamlined body. Either steel or pneumatic tyres are available.

Nearby is shown the new "Sungrubber" pan-breaker, a sturdy implement having seven rigid tynes and automatic lift for use behind a tractor. The name "Pan-breaker" results from the fact that this implement is used on irrigation areas to break up the hard sub-soil pan that usually forms after a period of alternate cultivation and irrigation. The tynes work to a depth of 16 or 17 inches.

The Sungrubber has other uses as well, for to it can be fitted a two and three furrow pivoted mouldboard plough attachment for ploughing away from the vines, or a single or double row disc harrow attachment for general cultivation.

The new Sunshine 2-wheel spraying outfit provides high pressure and capacity sufficient for four nozzles or two spray guns, combined with economical running.

Another spraying outfit is mounted on a steel frame and can be used on a truck or dray.

Amongst the orchard mouldboard ploughs, one is attracted by the popular Massey Harris National Gang, 2 furrow, the Sunbird 2 and 3 furrow, and the Massey Harris New Model single furrow.

Nearby stands the Sunmassey orchard spring-tyne cultivator, which is made in 7, 9, 11 and 13-tyne sizes. The "Sunmassey" can be equipped with either pole and swings or a two-wheel forecarriage.

Another new Sunshine product, the Sunreach disc cultivator, has proved of value in cultivating under trees. It has five 16-inch discs set out on a frame extension, while at the rear, behind the driver's seat and controlled by lever, are four circular control-coulters.

The widely used Sunslide spring-tyne harrow is exhibited with disc-control for orchard work. The mounting of control discs fore and aft permit of the draught being set to the side so that the implement can be worked close up to trees while the horse walks clear. The "Sunslide" has nine spring tynes with lever adjustment for depth regulation and the tynes may be turned right out of the ground so that the implement slides over the ground on its frame runners.

We have mentioned but a few of the many Sunshine and Massey Harris implements and machines for the fruitgrower that are exhibited on the stand of H. V. McKay Massey Harris Pty. Ltd., Skene-street, Showgrounds, just near the Railway entrance of the grounds.

FOWLER SANDERS ENGINES.

Howard Rotary Hoes.

Orchardists and general farmers visiting the Royal Melbourne Show should not fail to see the exhibits of E. Hassett & Sons, at Stand 106, at the corner of Smith & Patterson streets, at the rear of the State Savings Bank building. There will be working demonstrations, and Hassett's experts will be glad to explain the advantages of their various units.

The Fowler Sanders (English) Diesel Engines operate with a two-way swivel principle that not only ensures easy starting under every weather condition, but complete combustion and therefore very economical operation.

All sizes of the well-known Howard Rotary Hoe will be seen. For harrowing, ploughing, or all orchard work the Howard Rotary Hoe sets a standard either with the Junior or with the larger 22 or the medium sizes. See Hassett's stand 106, or call at their 626 Bourke-street showrooms. Country clients not attending the Royal Show can obtain printed illustrated information upon application.

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:: :: ::

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N.S.W. Crop Prospects

Pome and Stone Fruit Development Generally Satisfactory.

EARLY FRUIT CROP PROSPECTS are indicated in the latest report to hand from the N.S.W. Dept. of Agriculture, as follows:—

Fruit (Inland).

It is too early as yet to indicate crop prospects in Northern Tableland orchards, but at present the **outlook is satisfactory.**

Apples and Pears are showing good bud development in the Goulburn inspectorate, but the new wood on **Peach** and **Nectarine** trees is poor, apparently owing to the extremely dry conditions experienced last season.

All varieties of pome fruit, apart from trees that were heavily cropped, are **budding satisfactorily in the Bathurst district.** Stone fruit trees are also budding well, but good rain is required to ensure favourable Spring and Summer conditions.

Around **Orange**, the budding of Granny Smith and Rome Beauty trees is moderate to good, while it is medium on Delicious and Jonathan. The show on Williams and Packham Pears is also moderate to good and generally Plums, Peaches and Nectarines are displaying satisfactory bud development.

Good soaking rains, heavy frosts and mild to cold weather were experienced at **Young.** The frosts were beneficial in retarding forward bud growth. All varieties of Apples are budding reasonably well. Packhams and Williams Pear buds are prominent, but other kinds are only moderate to light. **Cherries and other stone fruits,** excepting Prunes, which are carrying a moderate show, are satisfactory, and the buds are well forward.

On the Murrumbidgee Irrigation areas there is very good budding apparent on all **Apples and Pears** at Yenda, and bud indications are promising at Leeton. The fruiting wood of **Apricots, Peaches** and **Plums** is very good at Yenda and Leeton; it is expected that flowering of **Apricots and Peaches** will be about three weeks earlier than last season in the latter locality.

Fruit (Coastal).

There is good budding on Apples and Pears at **Windsor.** Early varieties of **Apricots,** especially Glengarry, are at the pinking stage, and there is a likelihood of frost injury. Watts Early and Bells **Peach** trees are blooming, and in low situations frost damage is reported, otherwise prospects are good.

Budding of all early **Peaches and Plums** is well advanced in the **Hawkesbury district,** and some of the first-mentioned trees are in full bloom. In the **Kurrajong sector,** all classes of Apples and Pears appear to be budding nicely and in the case of the latter a heavy blossoming should result as the trees have developed plenty of spurs. Stone fruit trees have made good growth and in some instances profuse flowering is expected; a few trees are already in full bloom.

Peach buds are very forward in the **Parramatta-Camden** district.

Strawberries are coming forward from the Glenfield locality.

Fair growing conditions prevailed in the Tweed Heads district, and indications point to an early Spring.

Around **Brunswick** the normal Winter weather has retarded the development of fruit in most plantations, nevertheless medium quantities of very fair quality are expected to go forward to market during August. A number of growers who have "bagged" the bunched report very favorably upon the appearance and quality of the fruit. The planting period will commence in late August-September and **it is anticipated a fair acreage will be put in for season 1939/40.**

Good growth is taking place at **Ballina;** medium marketings are being effected, but quality is below the customary standard for this time of the year.

Some heavy frosts were experienced at Lismore, but Banana crops do not appear to have sustained any damage. Moderate marketings are in prospect, but there will be a fair percentage of poorly filled fruit.

Dry and windy weather with frost had a very adverse effect at Macksville. According to reports, much damage was caused in plantations on low-lying areas, whilst those on higher elevations are suffering from drying winds and lack of moisture. As a result, crops are expected to be light with the fruit having a tendency to be immature.

Pineapples.

Crops in the Banora Point and Terranora localities of the Tweed Heads district are showing good fruitings.

Harvesting at Ballina has yielded supplies above local requirements and light to medium consignments are being made to southern markets.

Winter crops show heavy yields. The bulk will be consumed locally.

In the Macksville district, cold winds and lack of rain have resulted in Summer crops being in an unpromising state at the moment.

Passionfruit.

Some early blossom is appearing in sheltered spots in the Brunswick district, but generally vines are making little growth and crops will be several weeks later this season.

The Winter crop is ripening around Lismore, but it is very light.

In the Telegraph Point area of the Macksville district the vines are carrying a fair crop of good quality fruit but elsewhere adverse weather is occasioning much loss.

ARE YOU GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features with a host of others, was THE "MONKEY" GRUBBER.

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

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Export & Commercial News

Empire Fruit Producers' Conference

COMMODITY COUNCILS DISCUSSED — CONTINUATION OF AUSTRALIA-NEW ZEALAND APPLE QUOTA RECOMMENDED — REGULATION OF EMPIRE AND U.S.A. APPLE IMPORTS INTO UNITED KINGDOM — JOINT EDUCATIONAL PROPAGANDA PROPOSED TO INCREASE APPLE AND PEAR CONSUMPTION.

THE EMPIRE FRUIT PRODUCERS Conference, convened by the Empire Fruits Council, was held at London from June 21 to 30. Mr. G. M. Dykes (S. Africa), presided. Delegates were in attendance from the National Farmers' Union (England), and from Jersey, Guernsey, Canada, S. Africa, Southern Rhodesia, West Indies, N. Zealand, and Australia. Observers attended from the British Board of Trade, the Ministry of Agriculture, the Imperial Economic Committee, and the British Empire Producers' Organisation.

Those present from Australia included Messrs. E. Ross and J. Thompson (delegates); Dr. T. H. Harrison, Messrs. S. H. Grueber, J. M. Ward, A. G. Strickland, S. F. Lynch, and S. R. McColl (observers). The N.Z. delegates were Messrs. H. E. Stephens and H. Turner.

The Council's Report.

The Vice-Chairman (Mr. S. W. Mount), presented the report of the Empire Fruits Council, which stated that 25 meetings had been held since its inception in 1936. There had been voluntary regulation of Dominion supplies of Apples.

(a) **Canada:** In 1936 and 1937, Canada ceased exporting Domestic "C" Grade Apples and there were certain restrictions regarding other grades, but no restrictions were applied in 1938 because of the light English crop.

(b) By joint arrangement between Australia and New Zealand, their maximum export qualities of Apples were fixed by quotas.

With regard to the Anglo-American Trade Agreement, the Council had made urgent representations to the British Government protesting against reduction of duties. The terms of the agreement finally reached have been published. The report was adopted.

Commodity Councils.

Mr. R. H. Franklin, of the Ministry for Agriculture, addressed the Conference on the subject of Commodity Councils and the regulation of imports into the United Kingdom. He gave particulars of the operations of the Meat Control System and a memorandum was subsequently drawn up, setting out methods for regulating exports of Dominion raw fruit. Mr. Cleveland Fife (National Farmers' Union) expressed the view that in England, the setting up of Commodity Councils somewhat on the lines of the International Beef Conference, was anticipated for the regulation of imports.

Australian delegates gave particulars of the substantial sacrifices which had been voluntarily accepted by Australia in relation to Apple export during the past six years.

The New Zealand delegates stated that anything they agreed to would be subsequent to the ratification of their Government who were expected to take over the fruit industry in the 1940 season.

Organisation of U.K. Growers.

The leader of the U.K. delegation gave particulars of the efforts to secure "control" legislation which had been rejected by the growers. He also gave details of the progress made in improved grading, packing and marketing under the present voluntary system. After full discussion, the following resolution was carried:

"That in order to facilitate the development of the present system of regulating supplies of Dominion fruit to the United Kingdom market, home growers should explore the possibility of securing the introduction of statutory powers to regulate the grading and marketing of their Apples and Pears."

Regulation of Apple Supplies.

After a full discussion of these proposals, the Conference unanimously agreed that the following recommendations should be submitted to the organisations concerned:—

(a) Canada.

(i) That the export of Gravensteins should be kept to as low a tonnage as possible.

(ii) That while under the existing system of qualitative regulations no specific undertaking could be sought with regard to the quantity exported regulations similar to those in effect during the season 1936-37 should be made operative.

(iii) That with the exception of the varieties Cox, Jonathan and Delicious, the export of "C" Grade Apples should be prohibited during the months September to December inclusive.

(b) Australia and New Zealand.

(i) That the regulation of exports on a qualitative and quantitative basis be continued.

(ii) That the 1938 quotas be submitted as a basis for 1940 for the consideration of the Australian and New Zealand authorities.

(iii) That as far as practicable no shipments should arrive later than July 31.

(c) South Africa.

That total shipments should not exceed the 1936 shipments (91,000 cwt.).

American Co-operation.

A resolution was carried:—

"That in view of the existing regulation of Dominion fruit exports to the United Kingdom market, the Empire Fruits Council be authorised to initiate discussions with the principal foreign countries with regard to the orderly supply of their fruits to that market, bearing in mind the principle defined at Ottawa that Empire producers are entitled to preferential treatment, thereafter to report back to the constituent members of the Council."

Publicity.

The Australian delegates brought forward the question of publicity on the lines of educational propaganda. A resolution was unanimously carried:—

"That the Empire Fruits Council should initiate a joint scheme for the advertising of specific fruits in the United Kingdom, and should invite the principal foreign countries concerned to participate."

Canada agreed to join in on a joint movement, subject to their acceptance of the proposals finally drawn up. It was decided to approach U.S.A. Apple interests; English Apple interests are endeavouring to promote the means of collecting a levy. A Sub-Committtee of the Empire Fruits Council is dealing with all details.

Imperial Fruit Shows.

In the past the Annual Imperial Fruit Show has catered almost solely for English and Canadian Apples. A project is under consideration, subject to support from overseas, to enable Apples from Australia, New Zealand, South Africa and Canada to be exhibited in their respective seasons. An endeavour is being made to implement this for the 1940 season.

Fruit for Processing.

The Conference considered the position of primary producers who supply the processed fruit market, and particular attention was drawn to the rapid expansion of this outlet for raw fruit.

It was unanimously agreed:—

"That in view of the expanding outlet for fruit for processing, the Empire Fruits Council should give consideration to the problems of the Empire primary producer supplying this market."

War Possibility.

The delegates discussed the question of transporting supplies of raw fruit in time of war, and unanimously agreed:—

"That the Empire Fruits Council should discuss with the Food (Defence Plans) Department the question of supplies of raw fruit in the event of war, and the matter of processed fruit should also be raised in conjunction with the Empire Canners' Council."

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London is reached by express freight trains in three hours from Southampton—All fruit unloaded in Southampton to-day will be at Covent Garden, Spitalfields, or Borough Market for early morning market to-morrow, with days saved as against fruit discharged by ships calling at Continental and other outports first. The slight additional cost is altogether outweighed by the tremendous advantages of days saved.

Deterioration is avoided by special arrangements for sorting to mark, and quick insulated trains direct to London.

Southampton cold stores available for storage of produce for local consumption or Midland deliveries. Pears can be discharged from ship to cold store in less than 5 minutes.

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CASES FOR FRUIT

AUSTRALIAN-MADE FROM AUSTRALIAN GROWN TREES.

AUSTRALIA'S great need is soft woods. Australia's forests are unique in, that little native softwoods are available, but the foresight in establishing Pinus radiata "forests" is now beginning to repay those who had faith in such enterprise some twelve years ago. This timber is ideal for case making, especially at the age of about twelve years; somewhat similar to Baltic Deal, it is harder and more durable and as case material, it far surpasses the imported.

Section of a 14-year-old Australian Pine Forest.

A South Australian Government report states that "when properly seasoned, this wood is equal to the best imported softwoods — it takes nails better, stands more rough handling, and does not taint the fruit." In a report prepared by the Commonwealth Division of Forest Products (No. 81), a comparison of Pinus radiata with Hemlock, says of radiata: "Compared with Hemlock, it is denser, shrinks less, has a higher bending strength when dry, but lower when green, slightly lower stiffness, considerably higher impact strength especially when dry, and much higher resistance in splitting when dry."

Cases from this timber are now on the market. The Forestry Pulp and Paper Company of Australia Ltd., of 399 Little Collins-street, Melbourne, at its mill at Dartmoor will turn out large quantities per week, cut from twelve years old plantation grown pines. The whole output will be kiln dried straight from the saw in a modern battery of 30 feet cross shaft internal fan kilns. The yard layout will be of the latest design and the timber cut with precision and efficiently and economically handled by specially designed hydraulic powered lifting and transfer trucks.

The case material is of excellent appearance, the clean saw cut giving the boards an even white surface. Few knots are seen, and what are there are small and fast, they will not drop out. The made up case is a delight to the eye, being clean, neat and square, for with kiln dried radiata, you get neither warp nor twist—the bugbear of the packer. As material for the export case, it is unexcelled, being strong and light.

Considering the advantages of the radiata case over the case cut from imported timber, the prices quoted are very low. By mass production this is possible and growers should note this. The radiata case is cut to order from Australian grown trees, by Australian labour, and is, without doubt, a fitting container for Australian fruit.

Growers visiting the Royal Melbourne Show can inspect this product and get full information at Stand No. 209, Skene-street North (opposite United Country Party Rooms), at the Royal Show Grounds, Flemington.

OVERSEAS APPLE EXPORT.

Restrictions On Varieties.

A report to hand from the Collector of Customs, Tasmania, reminds growers that in October, 1938, a meeting of State Supervising Officers decided that **Gloria Mundi, Gooseberry Pippin, Blenheim Orange and other so-called Yellow Alfriston Apples, were not Alfriston, and should not be accepted for export as such.**

To allow growers to make arrangements for reworking these varieties, if they thought fit, it was decided not to prohibit the export of the yellow varieties until 1940. The Apple and Pear Council was notified of this decision at its meeting in October, 1938.

Complaints have been received each season from overseas about the Yellow Alfristons, which, because of their colour (usually yellow on arrival), and their greater liability to bruising, pit and general deterioration, are inferior to the true Alfriston.

Growers are again reminded that in future only the true or green Alfriston will be permitted export under that name.

QUEENSLAND.

Quarterly Report of C.O.D. Reveals Varied Activities.

The Quarterly Report of the Committee of Direction of Fruit Marketing, Brisbane, for the months of May, June, and July, 1939, contains many interesting items.

The report directs attention to the decision of the Victorian Government to amend certain regulations of the **Farm Produce Agents Act of Victoria,** under which final dividends from defaulting agents would go exclusively to producers. The insurance bond was being increased from £250 to £500, in the case of individuals, and £1,000 for partnerships and companies. Merchants as well as agents are to take out Fidelity bonds to protect growers; the Department of Agriculture to have the right to inspect all agents' and merchants' books. The C.O.D. points out, however, that defaults on the part of members of the Melbourne trade have been rare.

Regarding the **sale of fruit in Melbourne:** The Victorian Government had announced that the sale of fruits at sports gatherings, etc., would be permitted by an amendment to the Act. Other matters dealt with included canvassing agreements, street sale of fruit in Brisbane, report of the N.S.W. Royal Commission, Qld. motor registration, sale of Beans by weight in Brisbane, Brisbane credit control, registered rail transport. Particulars are also given of the C.O.D. trading activities in fruits and vegetables at their Sydney store. Also details of country fruit and vegetable distribution scheme. The Merchandise Department shows the last financial year, ending June 30, revealing steady entries from £23,595 in 1934-35 to £52,500 in 1938-39.

Regarding consignments of **Tomatoes from Bowen,** the report points out that consignments to Southern markets from Bowen commenced in April and by June the total had increased to 14,000 cases in one week. **Mangoes and Pineapples** were flourishing.

Details are also given re Brisbane Sales Section and their branches at Rockhampton, Townsville and Mackay.

Melbourne Ripening Rooms Close.

The Banana Section Group Committee recently decided to close the Melbourne ripening rooms, thus terminating what had proved to be an unhappy venture. However, as the result of the co-operative efforts of the Queensland Banana growers, in conjunction with research authorities, a new technique in ripening had been made available to the Banana trade of Australia.

Figures indicating the Banana production of N.S.W. and Queensland for the twelve months ending June 30, 1938 and 1939, are as follows:—

	1937-38.	1938-39.
	Cases.	
Queensland production . .	498,386	589,430
New South Wales production . .	944,908	1,043,430
	1,443,294	1,632,913

LONDON SHIPPING.

Over 1,000,000 N.R.T.

During the week ended June 30, 884 vessels, representing 1,053,864 net register tons, used the Port of London. Of these, 498 vessels (876,692 net register tons) were to and from Empire and foreign ports and 386 vessels (177,172 net register tons) were engaged in coastwise traffic.

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N.S.W. Chamber of Fruit and Vegetable Industries

Annual Meeting—Year of Varied Activity

THE ANNUAL GENERAL MEETING of the N.S.W. Chamber of Fruit and Vegetable Industries was held in the Council room of the Chamber, Sydney (N.S.W.), July, 27, 1939, and was well attended by members of the Fruit and Vegetable Trade. The meeting was in every way the most successful held in the history of the Chamber.

In presenting his report, the President, Mr. L. J. Jenkins welcomed several new members and stated that the motto "Service with Integrity" remained a practical working ideal.

He referred to the formation of the Apple and Pear Board, and stressed

MR. W. MUSGROVE,
the newly appointed President.

the necessity for creating an Australian-wide fruit industry consultative committee. The unsuitability of the market premises and the need for improvement was strongly emphasised. Appreciation was expressed for the facilities provided for giving evidence before the Royal Commission, and the Commissioner was congratulated on "doing an extremely difficult job moderately well."

Appreciation was expressed for the several voluntary growers' organisations.

Close contact had been maintained with the Tasmanian State Fruit Board and much benefit had resulted. The Chamber had been active in dealing with the matter of the New Zealand citrus embargo.

In conclusion, the Chairman stated that the bulk loading system was now on a profitable basis and extensions were possible. A fidelity guarantee fund to be implemented and administered by the Chamber; a system of associated membership had been constituted and the establishment of a junior section was under consideration. The formation of a market trust was advocated when the industry would either own or control its own markets.

Appreciation was expressed for the services of the Secretary, Mr. P. S. MacDermott.

The report was unanimously received and adopted.

As Mr. Jenkins is retiring from the Presidency after four years, he was presented with an enlarged photograph to be hung in the Council room of the Chamber. This was inscribed as follows:—

"Mr. L. J. Jenkins. Founder and first President of the N.S.W. Chamber of Fruit and Vegetable Industries.

President from July, 1935 to August, 1939."

Reports were also received from Mr. Chilton, Hon. Treasurer; Mr. Musgrove, Chairman of the Tasmanian Agent's Section; Mr. W. J. Curtis, Chairman of the Vegetable Agent's Section; Mr. J. Holmes, Chairman of the N.S.W. Markets Committee; Mr. P. S. MacDermott, General Secretary of the Chamber.

It was decided to appoint Mr. Alfred Beavis an Honorary Member of the Chamber.

At a meeting of the Council of the N.S.W. Chamber of Fruit and Vegetable Industries held recently, the following Officers were appointed for the ensuing year:—

President (Mr. W. Musgrove); Deputy President (Mr. C. R. Walker); Vice-President (Mr. E. E. Cooke); Vice-President (Mr. Fred. Chilton); Hon. Treasurer (Mr. J. Holmes).

Council placed on record its very deep appreciation of the outstanding services rendered by the retiring President, Mr. L. J. Jenkins, during his four years term of office, and it was unanimously agreed to co-opt him as a member of the Executive during the next twelve months.

The annual dinner of the Chamber will be held at Sydney, on October 14.

SYDNEY MARKETS.

Opening Hours Debated.

In protesting to the City Council recently against the opening of the Municipal Markets at 6 a.m., the N.S.W. Chamber of Fruit and Vegetable Industries claimed that it would give an unfair advantage to suburban growers who would be able to get their produce on the stalls about an hour before country growers. At least 80 per cent. of the produce came from the country, it was claimed.

A petition signed by about 900 growers was also received from a section of growers asking that the markets be opened at 6 a.m. during the Summer months.

The Council decided to refer the letter and petition to the Finance Committee for consideration. Previously the Finance Committee had recommended that the universal opening hour should be 7 a.m.

AUSTRALIAN DRIED FRUITS.

The Commonwealth Dried Fruits Export Control Board advises that during the week ended August 17, 1,294 tons of Australian dried fruits were sold in Great Britain, including 88 tons of Lexias at £45/15/5 per ton, 210 tons of Currants at £29/15/11, and 933 tons of new season's Sultanas at £37/14/9 per ton.

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2½ in. ROKEWOODS.

Victorian Grower Urges Permission to Export.

In urging that 2½ in. Rokewoods should be permitted to be exported, Mr. W. H. Carne, Pakenham Upper, Vic., speaking at the last meeting of the Executive of the V.F.M.A., stated that the following prices indicated that these small Rokewoods were wanted on British markets.

Four consignments were sent last season, results being as follows:—

1. 2½ in. Rokewoods, 10/6 per case, compared with small Yates, 10/2 per case.
2. 2½ in. Rokewoods, 9/-, 2¼ in. and 2½ in. Rokewoods, 9/6.
3. 2½ in. Rokewoods, 9/- to 10/6, small Yates, 8/-.

In Liverpool (where it is understood larger sized fruit is generally desired)—

2½ in. Rokewoods brought 9/-, 2¼ in. and 2½ in., 10/6 to 11/-.

The limitations of the Manure Bounty to a maximum of £5 to any individual grower is being adversely felt by those who engage in intense cultivation.

N.S.W. FRUIT INDUSTRY ENQUIRY.

Commissioner's Report Available For £2/2/-.

Copies of the Commissioner's report on the findings of his enquiry into the New South Wales Fruit Industry are now obtainable in a volume of 595 printed pages. These are available from the New South Wales Government Printer at a price of £2/2/- each.

The information accumulated during the inquiry has been systematically recorded, each phase of the fruit industry, from land selection, clearing and planting, to production and marketing, being dealt with under separate sections and subsections. At the end of each section the Commissioner has listed his conclusions and recommendations. At the end of the report a complete summary of conclusions and recommendations has been prepared and included.

SOUTH AFRICAN DECIDUOUS CROP, 1938-39.

The 1938-39 season's deciduous fruit crops in S. Africa suffered considerably from the warm, dry Winter, shipments from the Union to the United Kingdom only amounting to 3,606,000 packages, as compared with 4,292,000 packages in the previous season.

Shipments from South Africa to the U.K. of deciduous fruits for the seasons 1937-38, and 1938-39 are as follows:—

Thousand Packages.

	1937-38.	1938-39.
Apples—Cases	158	119
Apricots—Trays (b)	98	50
Grapes—Boxes	2,054	2,016
Nectarines—Trays	42	43
Peaches—Trays	551	315
Pears—		
Cases	330	339
Trays(b)	90	78
Plums(a)—Trays(b)	949	615
Other kinds	20	(c)31
Total	4,292	3,606

(a)—Include Prunes.
(b)—Single and double layer—mainly double.
(c)—Litchies 21, Melons 7.

Growers who were unable to apply tar distillate for the control of Peach Aphid must now rely on nicotine, which should be applied as soon as there is any sign of Aphis.

Cable Address: DAVIS, MELBOURNE. Code: "ABC," 4th and 5th Editions. Box, G.P.O. 148B.

J. DAVIS PTY. LTD., *Fruit Merchants*

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Australia looks to you to produce and sell good fruit, but to **PRODUCE GOOD FRUIT** and have it badly sold is a reflection on your business ability. To sell well is as important as to produce well. The greatest combination that can exist beneficially is that between a painstaking fruitgrower and a painstaking salesman.

If you have good fruit to market, you will find in the firm of **GEORGE LISTER PTY. LTD.** the service you require. Established over 50 Years.

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Market Notes and Prices

FRUIT PRICES IN THE SYDNEY MARKET.

Survey of the Period July 25 to August 25, 1939.

By L. T. Pearce, Market Representative, Fruitgrowers' Federation of N.S.W.

INDICATIONS of the approach of warmer weather recently have been given by increased arrivals of **Bananas and Pineapples**, also of **Tomatoes** from districts in Southern Queensland. These increased arrivals have also been accompanied by increased quantities of **Navel Oranges** from the Irrigation Area, supplies fortunately being reduced during this week owing to rain on the Irrigation Area delaying picking operations.

Releases of **Apples** from Tasmania and N.S.W. have continued, the market recently clearing much more satisfactorily in regard to the Tasmanian fruit than was the case earlier in August.

Values of most fruits have been at a higher level than is customary at this season of the year, the aggregate quantity of fruit available being of course much less than usual. This has continued to be demonstrated, particularly in relation to citrus fruits (despite the recent influx of M.I.A. Navels), **Lemons** and **Grapefruit** being scarce and at payable values, while only the advanced maturity of **Mandarins** has retarded sales of this fruit at higher figures. The quantity and quality of **Passionfruit** available is reminiscent of some years ago, inferior and medium quality fruit comprising most of the arrivals.

Regarding tropical fruits, both **Custard Apples** and **Papaws** have appeared in reducing quantities, and the former fruit has just about reached the end of its season. **Strawberries** have continued to be a feature of the market each day, these being in heavy supply from Queensland and when quality warranted, satisfactory prices were obtained.

Export of citrus has continued, the total shipped for the season being as follows: — All ports, approximate number of cases, Oranges, 54,467; Lemons, 8,063; Grapefruit, 2,163; Mandarins, 71. Of this quantity New Zealand received as follows:— Oranges, 44,437; Lemons, 7,199; Grapefruit, 1,206.

Apples.

The chief supplies have been supplied by Tasmania, the weekly quota varying from 36,000 down to 26,000 for the Sydney market, the arrival of the smaller quantity facilitating clearances of stocks. **Scarlet Permains** are now well advanced in their season, while **Cleo., Delicious, Jonathan** and **Rome Beauty** are also nearing the end of their season.

The chief arrivals now comprise **Democrat** and **Sturmer**, the **Democrat** experiencing good request owing to its excellent keeping quality. There are some reports that the Democrat this year also has an improved flavour. **Sturmers** have at no time been popular, and fruit that was bruised was as difficult to clear as **colored French Crab.**

Some opinions are held that the demand for N.S.W. **Granny Smith** has receded a little during the past week or so, and some uneasiness is momentarily felt for those growers who are holding large supplies of Granny Smith for release later in the season. The uneasiness is not unnatural, nor unusual, as a recession of demand makes the man at the marketing end question the prospects of clearing stocks, and yet attaining the high prices that growers expect. It appears that supplies of Apples held in cool store will be ample for all requirements until the end of the season.

Popular counts of Granny Smith at present are 100 to 150 at 13/- to 14/-, count 113 being firm at 14/-. Counts 163 to 180 are around 11/-, while counts 88 and 198 are not so popular. With the Delicious Apple, in which type production is considerably less, the highest prices, namely 16/- to 18/-, are paid for counts 100 and 125, while counts 72, 96 and 138 vary from 14/- to 18/-, 150's being at 14/- to 15/- and 180 and 198 at 11/- to 12/-. The least popular counts are 216 at 8/- and 9/-, and 163 at 11/- to 13/-. Smaller sized fruit, namely counts 234 to 252, are around 7/- to 8/-.

These opinions upon the counts should not be regarded as an infallible statement of the position, but are an expression of opinion that may give some indication of the present state of the market.

A few **Rome Beauty, Dougherty, Democrat** and other types continue to come forward, but supplies of these types are very small. Western Australia has continued to forward **Granny Smith** and **Yates**, these moving satisfactorily.

Prices (Extra Fancy, Fancy, and Good): Cleo. (Tas.), 6/- to 9/-, few 10/-, per bush.; Crofton (Tas.), 7/- to 10/-, few 12/- per bush.; Del. (Tas. 6/- to 10/-, extra fancy to 13/-), (N.S.W.), 7/- to 18/-, few higher per bush.; Dougherty (W.A. 8/- to 11/-), (N.S.W.), 8/- to 13/- per bush.; Demo. (Tas. 5/6 to 8/-, few 9/-), (N.S.W.), 5/6 to 9/- per bush.; French Crab (Tas.), 3/6 to 7/-, green to 9/- per bush.; Grannys (Tas. 7/- to 12/-), (W.A. 11/- to 12/-), (N.S.W.), 7/- to 14/- per bush.; Jon. (Tas.), 6/6 to 11/- per bush.; Romes (Tas. 6/- to 9/-), (W.A. 8/- to 11/-), (N.S.W.), 6/- to 12/- per bush; Sturmer (Tas.), 3/- to 6/-, few 7/- per bush.; Scarlets (Tas.), 4/- to 8/-, few 9/- per bush.; Yates (W.A.), 10/- to 11/- per bush.; Very small, "D" Grade and overmatured lower.

Pears.

A feature of the season has been the good quality **Winter Nelis** available from all sources, this type frequently being preferred to the available **Winter Cole. Josephine** have had steady sale, but the chief enquiry has been for large sized **Packham's Triumph**, which have been very scarce. Arrivals from Tasmania have steadily decreased, and the quota from Victoria has only been small.

Prices: Jos. (Vic., Tas., and N.S.W.), 6/- to 12/- per bush.; Packham's (Vic. and N.S.W.), 8/- to 16/- per bush.; Winter Cole (Tas. and N.S.W.), 7/- to 12/-, few 15/- per bush.; Winter Nelis (Tas. and N.S.W.), 5/- to 12/- per bush.; Small and "D" Grade lower.

Bananas.

Arrivals each week have varied from just over 4,000 tropical cases up to almost 9,000 cases, most of this fruit coming from N.S.W. sources. On occasions fruit was slow to develop color, and on the other hand the month has seen an improvement in the quality of fruit, Squirter being less prevalent. In the opinions of some vendors prices have receded recently, but the nominal quotation now is 15/- to 24/- per tropical case for all sizes.

Custard Apples.

Earlier in August, when arrivals were over 200 half cases per week, prices were at 5/- to 7/-, but latterly have become 7/- to 9/- as supplies have reduced.

Citrus Fruits.

Grapefruit.

Stocks of average quality fruit were slow to move early in August, and values in many instances were around 3/- to 6/-, with extra special quality up to 11/- and 14/-. About the middle of the month, however, supplies became much smaller and values improved. The **Wheeney** type, when clean in the skin and well graded, sold freely, but the smallness of many plantations made grading a difficult matter and mixed sizes did not always sell at the best price. The Narromine fruit was conspicuous, some sales of this fruit being made as high as 16/- per bushel case.

A number of growers are producing better quality Grapefruit than in years gone by, and some are making efforts to establish a reputation for their pack.

Prices (Standard and Special Grades): N.S.W., local 6/- to 9/-, special to 11/- per bushel; Inland 6/- to 9/-, special brands 12/- to 14/- per bush.

Lemons.

This fruit has been at an even value throughout recent weeks, supplies at no time being excessive, so that processors were glad to take large sizes at around 5/-, while retailers generally purchased at from 6/- to 7/-, and sometimes at 8/-. M.I.A. supplies have been light, most arrivals being from coastal areas.

Mandarins.

These are a little more plentiful now, owing to the necessity of marketing the fruit before it becomes dry or puffy. There has been a larger proportion than usual of large sized fruit, and this has always cleared readily. Small fruit showing advanced maturity is becoming more difficult to clear satisfactorily.

Prices (N.S.W.): Emperor, counts 140-216, 8/- to 10/-, few 12/- per bushel, counts 234-300, 5/- to 8/- per bushel, smaller 3/- to 5/-; Ellendale, 8/- to 11/- per bushel.

Navels.

The quiet tone of the market in regard to **Navel Oranges** that was displayed during recent weeks, gave place recently to considerable activity owing to an inrush of Navels from the M.I.A.

Supplies from all sources have, of course, been considerably less than usual at this season of the year, and values, particularly of coastal fruit, have been at unprecedented high levels. Irrigation Area consignments had not been considerable, and had been chiefly those large sizes that were unsuited to the N.Z. trade and also for country order requirements in this State. The fruit therefore comprised chiefly standard and plain grade of large fruit.

Due to the fact that coastal fruit has not been admitted to N.Z., the local product attained the high value

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Highest Prices. **A. S. BARR** Prompt Returns.

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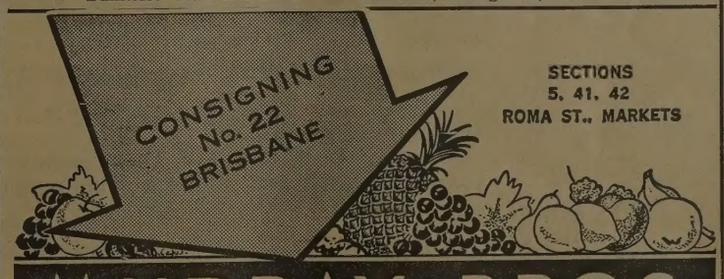

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5, 41, 42
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Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd. Harcourt Fruit Supply Co. Ltd. Victorian Central Citrus Assn. Ltd.
Tasmania: State Fruit Advisory Board.
New South Wales: Griffith Producers' Co-op. Co. Ltd. Batlow Packing House Co-op. Soc. Ltd.

of 7/- to 10/-, with a few to 11/-, while the M.I.A. product has been at a little lower figure. These values, however, altered considerably, and it is apparent that the local fruit of counts 150 to 180, that was bringing 9/- to 11/-, is feeling the competition of the larger sized fruit from the Area, which is so plentiful that it is under offer to the public at 1/6 and even 1/- per dozen. When through weight of supplies the agent is compelled to offer the retailer an Orange from 3 in. to 3¼ in. in diameter at 5/6 to 7/6 a bushel, it becomes obvious that the 2¾ in. to 2¾ in. Orange at 9/- and 10/- must receive less demand. This is the position despite the choiceness of the local product that has been under offer.

The rush of fruit that has just occurred is not an unusual occurrence, but seasonal conditions, and probably the attractiveness of market prices, has resulted in the influx of fruit occurring in August instead of during September. The position that has arisen will probably result in a test of the holding capacity of the fruit of certain growing areas, and growers, where possible, will allow their fruit to hang upon the trees, pending a stabilising of the position and an improvement in values. It is likely that most M.I.A. fruit from the Griffith Area and of the settlement is now marketed.

Valencias have been gradually finding their way to the market, due to the scarcity of Navels of small and medium sizes, and sales have been affected chiefly at around 6/- and 8/-. The demand for this Orange, however, as well as for **Joppa** and other types, is a litle lower at present, the least effected types probably being those suitable for sale at 6d. per dozen Orange.

Small consignments of Victorian Navels have arrived on the Sydney market during the past week, but the present position offers poor encouragement to fruit from the Southern State.

Prices (Standard and Average Special Grades): Navels (N.S.W.), Counts 56-72, inland 5/- to 7/- per bushel; counts 80-113, local 6/- to 7/-, inland 5/6 to 7/- per bushel; counts 125-150, local 8/- to 9/-, inland 7/6 to 9/- per bushel; counts 163-198, local 7/- to 9/-, inland 7/- to 9/- per bushel; Smaller, local, 7/- to 8/- per bushel; two-bushel crates, 10/- to 14/-, few 16/-; few special brands local, 10/- to 11/-, inland 10/- to 11/-. **Victorian**, 6/- to 9/- per bushel, Plain grade in all types lower. **Valencias:** (N.S.W.), local, counts 138-150, 7/- to 8/- per bushel; counts 163, 6/- to 6/6; counts 180-216, 5/6 to 6/-. **Other Oranges**, 5/- to 7/6. Seville, 4/- to 6/-.

Passionfruit.

As previously stated, small and inferior fruit has been more plentiful than usual, the severe frosts of the Winter affecting the quality.

Prices (N.S.W. and Q'land.): 4/- to 6/-, special 7/- to 9/-, few 11/-; small and inferior from 1/6 per half bushel.

Papaws.

When showing color this fruit sold satisfactorily, but difficulty was always experienced with fruit that arrived in an immature condition.

Prices: Q'land., 8/- to 14/- per tropical case.

Pineapples.

The Spring crop is appearing and supplies have already increased, and it is likely that the next month or two will see much heavier deliveries of Pineapples. Values were mostly at 7/- to 12/- throughout the month, but have recently become 7/- to 9/- per tropical case.

Strawberries.

The minimum price of 2/3 for trays has been observed by most vendors with large choice fruit on occasions reaching 5/-. Boxes have sold from the minimum of 6/- up to 12/-, with occasionally 14/- per dozen. Deliveries have been heavy. N.S.W. supplies have been very light, prices being only nominal.

Prices: Q'land., 2/3 to 4/6 per tray, 6/- to 12/- per dozen boxes; **N.S.W.**, 10/- to 15/- per dozen punnets.

Tomatoes.

Bowen, in Queensland, has provided our chief supplies, with Southern Queensland latterly forwarding. Bowen fruit realised from 4/- to 7/- most of the month, latterly improving to 8/-, while the Southern Queensland fruit has mostly been of very high quality and comparable in some instances with the new season glasshouse product from this State. The New South Wales glasshouse, hothouse and "protected" fruit is increasing rapidly in supply, satisfactory prices resulting this week from the scarcity of colored fruit.

Prices: (N.S.W.), protected, to 15/- per half case; hothouse, 12/- to 16/-, few 18/- per half case; glasshouse, 10/- to 14/- per half case. **(Q'land.)**, Bowen, 5/- to 8/- per half bushel; Southern Q'land., 8/- to 15/- per half bushel. **(Repacked)**, 12/- to 16/- per half bushel.

QUEENSLAND.

Brisbane: Messrs. W. Arkell & Sons report under date August 14 as follows:—Apples: Jons., 8/- to 13/-; Croftons, 9/- to 13/-; S.P.M., 7/- to 11/-; Dem., 6/- to 10/-; S.T.P., 5/- to 8/6; G.S., 11/- to 13/-; F.C. Green, 7/- to 8/6. Pears: W.C., 7/- to 14/-.

Demand last week was much better and values increased. Choice fruit wanted.

Brisbane (21/8/39).—Messrs. Clark & Jesser report as follows:—Apples: Jonathans, 2½ to 2¾, 12/- to 13/-, smaller sizes, 9/- to 11/-; other colored Apples, 10/- to 12/-; Granny Smiths, 12/- to 14/-; Sturmers, 8/-. Pears: Winter Coles, 12/- to 14/-, smaller sizes 9/- to 11/-; other varieties of Pears, 9/- to 11/-. Oranges: Navels, 10/- to 11/-; Valencias, 8/- to 9/-. Mandarins: 10/- to 11/-. Lemons: 9/- to 10/-. Passionfruit: 10/- to 12/-. Pineapples: Smooths, 5/- to 6/-; rough, 6/- to 7/- case. Grapefruit: Local, 6/- to 7/-; N.S.W., 7/- to 8/-. Tomatoes: 6/- to 7/-.

S. AUSTRALIA.

During August prices were somewhat depressed for most vegetables, particularly bunch lines, Cabbages and Cauliflowers. Peas drawn mostly from Pt. Pirie and River Areas showed a wide range in values, according to quality. Frost, etc., were responsible for the varying quality early, but later in the month some good quality local Peas made an appearance.

Potatoes remained steady throughout the month at 18/- to 19/- cwt., and although Onions eased slightly early, the demand later was very firm when prices ranged from 28/- to 30/- cwt.

Glass house Tomatoes early realised 12/- to 13/- per half case, but increasing supplies and continuous cold wet weather reduced the price at the end of the month to 7/- to 8/- per half case.

Later in the month the demand for bunch vegetables improved, but except for a slight increase in Parsnips value, prices were generally unaltered.

The fruit market was generally firm throughout, Apples increasing 1/- per case for most varieties, while citrus had a definite firming tendency, and prices were increased as a consequence.

Hereunder is a list of quotations operating on Wednesday market, 30/8/39:—

French Beans, 7/-, 8/- doz. lbs.; Beetroot, 1/- doz.; Brussels Sprouts, 2/-, 3/- doz. lbs.; Carrots, 1/6 doz. bchs.; Cauliflowers, 2/6, 3/- doz.; Celery, 3/-, 3/6 doz. hds.; Leeks, 2/- doz.; Lettuces, 1/-, 1/3 doz.; Onions, 30/-, 32/- cwt.; Parsnips, 2/- doz. bchs.; Peas, 6/-, 7/- bushel; Potatoes, 18/-, 19/- cwt.; Rhubarb, 1/6 doz.; Tomatoes, 1st, 8/- ½ case, 2nds, 7/- ½ case; Trombones, 4/-, 5/- cwt.; Turnips, 1/- doz. bchs.; Turnips, Swede, 1/6 doz. bchs.

Apples: Granny Smith, 9/- case; Delicious, 10/-; Jon., 10/-; Buncombe, 8/-; Romes, 8/-; Londons, 8/- case; Statesman, 8/-.

Bananas, 19/-, 21/- crate; Lemons, 6/- case; Mandarins, 12/-, 14/- case; Grapefruit, 6/-, 8/- case; Navels, 6/6, 8/- case; Pineapples, 11/-, 14/- case.

NEW ZEALAND.

Dunedin (25/8/39). — Messrs. Reilly's Central Produce Mart Ltd. report as follows:—

Good quality dessert Apples have a satisfactory enquiry, and better values are now being secured for first-grade lines. Small grade fruit is still difficult to place at satisfactory values. Cooking Apples have a good demand, and both dessert and cooking Pears are realising good values.

An excellent demand has been experienced for Oranges, and a further shipment is due to arrive by the "Waitaki" on Friday. The fruit will consist of Navels, and should have a good enquiry. A shipment of Australian Grapefruit is also scheduled to arrive ex this boat.

A further consignment of N.Z. Lemons is advised to arrive during the week. The fruit is very fine quality, and is meeting with a satisfactory demand. Small consignments of Marmalade Oranges continue to arrive, and values are higher.

Prices (Per Case): Australian Grapefruit, 20/6 to 25/6; N.Z. Lemons, fancy 10/6 to 16/-, good 8/6 to 14/-; Australian Navels, 18/- to 22/-; Marmalade Oranges, 14/-; Bananas, ripes, 22/6. Apples: Jons., 9/- to 12/-, Cleos. 7/- to 9/-, Del. 8/- to 10/6, G. Smith, 8/- to 10/6, Tasmas 7/6 to 9/-, Sturmers 8/- to 10/6, Ballarats 6/6 to 7/6, Rome Beauty 6/- to 7/6, Statesman 6/- to 8/6, Lord Wolseleys 6/- to 7-, small grades 3/6 to 5/6, cooking Apples 5/- to 6/-. Queensland Pineapples, 18/- to 23/-. Pears: Winter Coles 10/6 to 13/6, Winter Nelis 10/- to 12/-, cooking Pears, 6/- to 7/-.

TRADE WITH SWEDEN.

We acknowledge receipt, with thanks, of copies of the May and June, 1939 editions of the "Swedish-Australian and Swedish-New Zealand Trade Journal." These publications contain interesting illustrated articles on the Tasmanian and Western Australian Apple and Pear industries, together with notes on the export trade.

This trade journal is issued from the office of the Swedish Chamber of Commerce at 38 Carrington-street, Sydney. The Editor is Mr. G. M. Lindergren, B.A., Dip.Ec., L.I.C.A.

These publications also contain quite a lot of interesting information regarding Sweden and the opportunities for reciprocal trade between Sweden, Australia and New Zealand. It is interesting to note that Australian direct exports which were practically unknown some twenty-five years ago have now reached the annual total value of from £265,000 to £473,000. The last two years have seen an increase of 78.4 per cent. in Australian exports to Sweden.

It would appear that there are excellent opportunities for further developing reciprocal trade between Sweden, Australia and New Zealand.

SPECIAL NOTICE TO FRUITGROWERS

All Members under Fidelity Bond

In response to numerous requests from growers for information as to who are members of the

Wholesale Fruit Merchants' Association of Victoria

the following list is given. All are members of the above Association, and are registered firms carrying on business in the

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SILBERT SHARP & DAVIES PTY. LTD. (17).
WATKINS FRUIT COMPANY PTY. LTD (5)
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Correspondence is invited by the Association.

Office : 21 Wholesale Fruit Market, Queen Street, Melbourne. Phone: F 4866.

MOTOR NOTES

PRESERVING ENGINES.

Value of Oil Temperature.

Engineers in motor manufacturing centres are beginning to appreciate how important a factor is oil temperature in governing cylinder bore wear and the general life of motor engines. For some years now, oil coolers have been regarded as necessary units on racing cars, but the future, however, may see these fitments embodied in a much wider range of motor vehicles. The reason will be to prolong engine life.

During the last few years, there has been a welter of discussion that has centred around cylinder wear. The two factors that have received considerable attention are: Rapid warming up of the cooling water to avoid condensation, and consequent corrosion in cylinder bores, and ample lubrication of the cylinder walls. The first requirement has been met to an extent by the development of reliable thermostats, the second by the use of thinner oils.

According to one authority, the oil temperatures in an engine starting from cold, on an average day, is 12 degrees, after five minutes running 14 degrees, after 10 minutes running 16 degrees, after 20 minutes running 20 degrees, and after one hour's running on open throttle 60 degrees, from which it will be gathered how essential it is to warm up engine without delay, so that the cylinders and bearings receive their proper supply of crank case oil, which has risen to its normal working level.

Much research has been carried out on the problem of ensuring effectual temperature control of both water and crank case oil and avoidance of oil starvation while the engine is cold.

Eventually provision will no doubt be made to quickly raise the temperature of crank case oil, and then prevent its temperature from rising above a predetermined mark. Probably this will be done by means of thermostatically-controlled water temperature, thereby warming the oil up quickly and then cooling it later on.

PROBLEMS OF MOTOR HORNS.

New Movement in Britain.

In a message received from London, it is announced that, after October 1, new motor horns in the United Kingdom are to conform to specified limits of loudness. The Society of Motor Manufacturers and Traders has been negotiating with the Ministry of Transport for a considerable period, and this is the conclusion which has been reached. This result has been achieved by means of a voluntary undertaking which the Society has given to the Ministry. The present arrangement supplements a previous voluntary undertaking relating to the noise emitted by the vehicle itself.

The limits are what are known as 100 phons in the ordinary horn, and 105 in "wind tone" horns. The public will probably desire to know what this means, and for their information, 100 phons may be described as being rather louder than the noise experienced in the interior of a tube train with open windows.

As is generally known, the use of motor horns is entirely prohibited in built-up areas in London and other parts of Britain during the night and early morning hours.

BE EVER WATCHFUL!

Prepare for the Unexpected.

What causes a road accident? This question was put to world traffic authorities recently, and the final answer was, meeting the unexpected (states the Road Safety Council of N.S.W.).

Think of any accident in which you have been involved or which you have witnessed and you must admit that it was the unexpected that led to the smash. It doesn't matter who was blameworthy, the fact remains that to one person, at least, the unexpected was there for the fraction of time in which it was impossible to find means of escape.

A recently reported serious accident in N.S.W. emphasised this aspect of accident.

A train and a motor car were approaching a level crossing at night when suddenly another car appeared. The headlights dazzled the first motorist—the unexpected had occurred and the car was smashed to pieces against the engine. Who could have anticipated the meeting of two cars and an engine in the dead of night at a lonely level crossing?

Glaring Headlight Danger.

That accident emphasises the dangers of headlight glare at all times of the night.

Headlight glare is one of the reasons why the night highway fatality rate is six times higher than the day rate. The Road Safety Council is examining the position now to see whether there should be any compulsory dipping or other movement of headlights. It needs careful thought because there might be some "unexpected" occasion when dipping would be dangerous.

In the meantime it is wise always to be ready for the unexpected.

TO REMOVE CORROSION.

A simple method of removing corrosion from the positive post of a battery and its cable lug is to take a small tin, fill it with water, and heat up. Then throw in a small quantity of soap powder, or even a piece of soap itself. Dip the cable lug into the solution for a few moments, when the corrosion can be wiped off, and at the same time all traces of the acid adjacent will be neutralised.

The battery post can be cleaned by soaking the corrosion with the soap solution. If the post and lug are then wiped dry and smeared with vaseline further trouble of this nature will be avoided.

CAR AMMETER USED IN CIRCUIT OF SMALL CHARGER.

When using a small charger to boost your car battery, it is an easy matter to utilize the car ammeter in the circuit if the charger is not equipped with one, states "Farm Mechanics."

Simply connect one wire from the charger to the battery side of the electrical cut-out and ground the other wire to the car frame or the motor. If the positive side of the car battery is grounded, then ground the positive side of the charger, or vice versa.

Do You Keep Poultry?

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Housing of Pigs

Bad Conditions Favor Losses

CONTRARY TO A PREVALENT IMPRESSION, good housing costs very much less than bad—in the long run, states the N.S.W. Agricultural Bulletin.

Diseases due to bad housing are **catarrh of the head, pneumonia,** and **rheumatism.** Where these diseases occur they can usually be traced to one or more of the following causes:—(1) Insufficient shelter and draughty housing, (2) damp flooring, (3) badly drained yards and pastures, (4) overheating through crowding in small sties and subsequent chill, or (5) infection from previous cases of pneumonia.

Pneumonia, commonly called "pants" by the farmer owing to the exaggerated action of the ribs and abdominal muscles, is a common complaint amongst our pigs. In addition to this symptom the pig has a high temperature, is off his food and seeks a quiet dark spot to lie in, and is not easily roused. There may also be coughing and a discharge from the eyes and nose. **Sometimes the disease will occur very suddenly, with few or none of the above symptoms,** and the animal will die within a few days. Young pigs are most affected, but the disease may attack animals of any age.

The danger of this disease is that it tends to become infectious and spread through the herd, causing many deaths. Pigs bought from infected piggeries will introduce the disease into healthy stock.

Treatment is rarely of much benefit, although often pigs recover; but the recovered pigs are usually unthrifty, do not grow and put on fat, and often suffer afterwards from nervous disorders. It is rarely profitable to try and fatten a pig that has suffered at all severely from pneumonia, and, further, the pig that has apparently recovered may be the means of spreading the disease among healthy stock. **All affected pigs should be immediately removed from the healthy so that the disease shall not be spread.**

Prevention consists in paying attention to the housing and sanitation of the pigs' quarters.

Rheumatism is a disease characterised by lameness in one or more legs, swollen, painfull joints, and sometimes by partial paralysis of the limbs. The provision of warm dry housing and well-drained yards is the only preventive measure, while the addition of a little Epsom salts and saltpetre to the food will often cause improvement in sick animals.

Heat apoplexy is a disease of pigs which is due to insufficient shelter and shade in hot weather. It occurs in very fat animals and is most likely to be noticed if the pigs are exercised or travelled in the heat of the day; but it may often be seen in pigs without exercise if they are exposed to the hot sun without shade.

There may be few warning signs, the fat pig simply falling over and becoming unconscious. The condition is serious. Water poured over the head and snout will often be beneficial. Whisky or brandy in doses of a dessert to a tablespoonful may be given, or any other stimulant which is available.

Prevention lies in providing shade in the hot weather and not travelling or trucking fat pigs on excessively hot days.

WORMS IN PIGS.

Safeguards of Sanitation and Good Feeding.

DEVELOPMENT OF INTERNAL parasites of the pig is in every case favored by wet, muddy, unhygienic conditions, states a N.S.W. Departmental pamphlet. Pigs should not, therefore, be allowed access to streams, mud wallows, and bogs, but should be kept in dry yards, provided where necessary with concrete wallows so arranged that cleansing is an easy routine duty. The drain plug of the wallow should be of brass or copper; iron plugs rust and become difficult to remove and replace.

Overcrowding of pigs on pasture or crop paddocks should be rigidly avoided, as the larger the number of animals per unit area the heavier will be the worm infestation, and the more rapidly will the parasites spread.

Pigs that are kept in good condition by adequate feeding of a balanced diet, rich in minerals, will have their natural disease resistance at a maximum. Such animals will more readily throw off worm infestation.

Production of Apple Juice

The Huge Developments Elsewhere Suggest the Opportunities that exist in Australia.

By F. M. Read, M.Ag.Sc., Acting Superintendent of Horticulture, Victoria.

IN THE COURSE of an address to fruitgrowers at the Pakenham (Vic.) Field Day on August 11, Mr. F. M. Read, M.Ag.Sc., Acting Superintendent of Horticulture, Victoria, included the following interesting comments:—

THE RAPID DEVELOPMENT of the fruit juice industry in South Africa, America, and European countries during the past few years, and particularly the development of the Apple juice industry in Germany, is a matter of great interest to fruitgrowers in this country, for it would probably offer us not merely an outlet for some surplus production, but would also enable sound fruit culled for blemish or unfavorable size to be disposed of profitably, and in this way permit us to increase the attractiveness of our pack of fresh fruit, particularly for export.

While it should not be overlooked that, in this country, citrus juices are already fairly firmly established, there does appear to be room for very considerable development of the Apple juice industry.

In **Germany**, from 1926-1937, the production of Apple juice increased from half a million gallons to 15,000,000 gallons, and this gallonage for 1937 is equivalent to about 4½ million bushels of fruit or approximately the quantity exported from Australia to overseas destinations each year.

On a population ratio basis this would be equivalent to a consumption of, say, nearly one a half million gallons a year in Australia, requiring 40,000-500,000 bushels of Apples.

The German experience, however, shows that the cost of production and the price of such juice must be very reasonable if a wide demand is to be created, and that the home market must be depended upon for this reason.

Further, in Germany the high consumption has been due in no small measure to the fact that many factories in the producing areas have specialised in the crushing of fruit supplied by growers and take, as their payment, a proportion of the juice obtained. I do not know whether it would be possible to establish an industry on this basis in Australia, but I firmly believe, as I have said previously with respect to cider, that unless fruitgrowers show their own faith and interest in a new product of this type by consuming it largely themselves, they have only a limited prospect of persuading city dwellers to purchase it.

It does seem that the development of the fruit juices, because of your method of marketing, would be quite a logical development, and I think you should not lose sight of the possibilities in this direction.

Recently a very excellent publication from the Imperial Bureau of Horticulture, dealing with the production side, has been received in Australia, and I should say there were now no insurmountable technical difficulties.

It should not be considered by the Apple industry, however, that the development of Apple juice will be easy or free from severe competition largely from Pineapples and Tomato juices, both of which are already important new competitors in world trade, as well as the older established citrus juice industry. I believe that in Australia already the Pineapple interests are making considerable headway, and while we do not begrudge them any success that they achieve, it is very material to those of us who are interested in Apples to see that we are not left behind in the early stages of this race.

I am informed that, as in the case of cider, the addition of a small percentage of cider varieties, such as Kingston Black, effects an enormous improvement in the character, and, therefore, attractiveness of Apple juice, and I think we should examine our slender resources in this direction quite early in the piece if we do decide to develop Apple juice production in Victoria.

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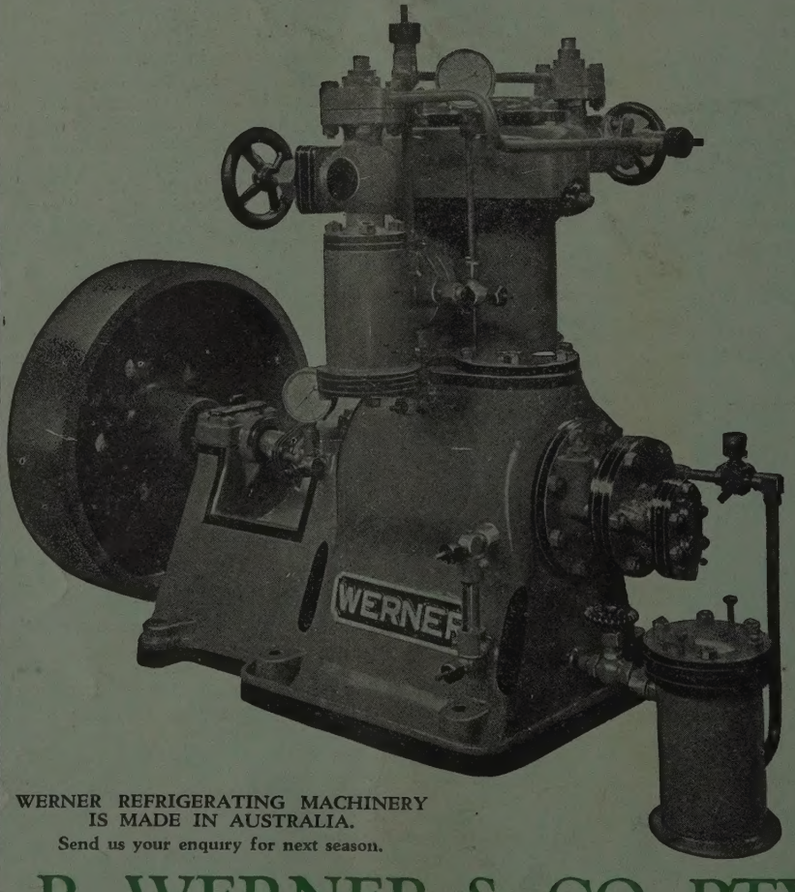

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PROPERTIES FOR SALE.

Mornington Peninsula for Orchards.

The Mornington Peninsula, Victoria, is well known for its fruit production under ideal conditions. Its proximity to the Melbourne market, easy road and rail transport, local cool stores and other favorable conditions, make the Peninsula a most alluring district, and Victorians are more and more looking to that area for both living and production conditions that they find very agreeable.

The Peninsula's average rainfall over the past 40 years has been 38 inches. It has never experienced a drought. Even the driest seasons are offset by heavy dews. Extreme frost conditions are seldom experienced. Passionfruit growing has developed in the past few years, and the Peninsula has been found very suitable for this fruit. Electric light is being extended right through the Peninsula as quickly as possible.

As illustrating the climatic conditions, it is quoted as a wonderful sheep country, the lambing average is said to be 100 per cent., whilst its close proximity to the Newmarket saleyards allows sheep breeders to get their stock to the market in fresh, prime condition—and get the highest prices.

In this issue, Mr. Geo. Higgens, auctioneer and estate agent, of 108 Queen-street, Melbourne, and at Red Hill, announces properties for sale in the Peninsula area. These are of various sizes and in various stages of development. One 25-acre property has 12 acres of orchard and good house accommodation. Another 20 acres with 7 planted in orchard trees; another 60-acres property has 12 acres in fruit, a six-roomed house and all conveniences. Other properties that will appeal to the average orchardist are also available.

For the sheep man, the Peninsula has a definite appeal, and Mr. Higgens has the handling of quite a number of interesting sales. Inspection can be arranged for any prospective buyer. All properties offered can be bought upon easy terms. If you are looking for an orchard property, consider the Peninsula and get in touch with Mr. Geo. Higgens, telephone MU 1975, or Red Hill South 13.

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